

USDA / Rural Development July/August 2007 DIN SAN I From the Rubble

Co-ops' role in renewable energy economy

Editor's note: the following remarks are excerpted from a talk Agriculture Secretary Mike Johanns gave during a reception hosted by the National Council of Farmer Cooperatives at USDA headquarters in Washington, D.C., in June.

The public's appetite for renewable energy and the President's renewable energy goal are both pulling us to a new era. Today, the market is driving more of the decisions that farmers make about what crops they plant. It's shaping the choices that your cooperatives are making about how to organize your businesses and where to invest your equity.

Cooperatives are a vital part of the economic well-being of rural America. For more than 80 years, you've been delivering collective purchasing and marketing power to our farmers, and you have often been the first to see and act on new opportunities, such as renewable energy and the opportunity that it presents today.

I want to urge you to continue to work aggressively to make sure your members' equity is invested wisely and that it remains transparent and that it benefits the future generations as you have benefited in the past.

We are fortunate today that we have a very strong economy. Except for cotton, prices for major commodity crops are relatively high and in some areas historically high. We are showing great strength in agricultural exports as well. We expect them to top \$77 billion this year. This is shaping up to be our fourth record year in a row and the eighth straight year of growth.

What all this means is that more farmers are working for themselves, and that's a good thing. Farmers tell me that's a good thing. In March, U.S. farmers reported to us that they have planted 90.5 million acres of corn this year, 15 percent more than last year, and the most corn we have seen in the ground since 1944. That means we hope for a record crop of 12.5 billion bushels in 2007, 2 billion more than last year. So farmers are responding to the marketplace, and then some. But we know that to break our dependence on foreign oil, we can't solely rely on ethanol from corn. We must also support the market as it seeks out alternative feedstocks to meet our present energy needs and the energy needs of the future. That's why we propose \$1.6 billion in new spending for this year's Farm Bill to speed up the development and the production of renewable fuels.



headquarters in Washington, D.C. USDA photo by Alice Welch

The focus of our research effort will be relative to cellulosic ethanol, a practical and cost-effective alternative fuel. But we also want to see progress in other areas, including making more use of methane to generate electric power.

I know many dairy cooperatives are already working in this area, and I applaud them for their efforts. Part of our renewable energy proposal calls for an additional \$500 million in funding for a grant program that funds energy efficiency and alternative energy projects. This program has already helped fund more than 90 methane-to-energy projects around this country.

In fact, since 2002, USDA Rural Development has provided a total of \$37 million to support methane-to-energy projects. That investment has leveraged more than \$122 million in other funds.

These types of investments made by USDA, and the type many of your co-ops are making, will help reduce our dependence on foreign oil.

We appreciate the great work you do out there for American agriculture. We appreciate all you do, and I look forward to working with you as your Secretary of Agriculture.

— Mike Johanns, U.S. Secretary of Agriculture

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Mike Johanns, Secretary of Agriculture

Thomas C. Dorr, Under Secretary, USDA Rural Development

Dan Campbell, Editor

Vision Integrated Marketing/KOTA, Design

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Co-op salvages bope amid ruins Southern Plains takes a licking, but keeps on ticking

By Stephen Thompson



12 Upstate Niagara Goes Uptown Team effort provides financing for modern, \$35 million dairy plant



18 Wired for Success

> Broadband co-op helping southern Virginia attract new information technology jobs By Dan Campbell



29 Mica, Abernathy, Ditsch named top co-op communicators



Evolving technology may generate profit from biodiesel glycerin glut





p. 30

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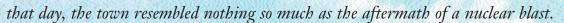
- COMMENTARY
- 15 IN THE SPOTLIGHT
- 17 FOCUS ON...
- CO-OP DEVELOPMENT ACTION
- UTILITY CO-OP CONNECTION
- 26 VALUE-ADDED CORNER
- 33 **NEWSLINE**
- 38 PAGE FROM THE PAST

On the Cover:

The Southern Plains Cooperative elevator in Greensburg, Kan., was one of the few structures still standing after the town was hit by a 1.7-mile-wide tornado on May 4. See page 4 for a look at how the coop and town are striving to recover from the tragedy. USDA photo by Stephen Thompson

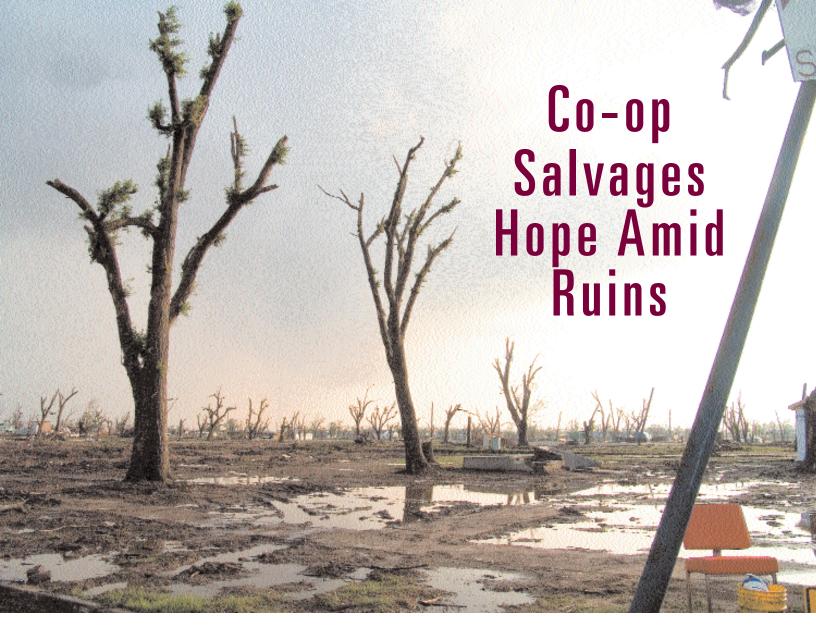






A monster of a tornado raged through Greensburg's pleasant tree-lined streets at 10 p.m., killing 14 people. The tornado's funnel was 1.7 miles wide, with winds exceeding 200 miles per hour. It smashed most of the town to matchsticks, crumpled cars and trucks like soda cans and ripped the leaves, branches and even bark from hundreds of trees. "Rural Cooperatives" visited Greensburg six weeks after the disaster to see how the recovery was progressing.





Southern Plains takes a licking, but keeps on ticking

By Stephen Thompson, Assistant editor

stephenA.thompson@wdc.usda.gov



e're still here!" says Danny McLarty, manager of Southern Plains Co-op's Greensburg operation,

when asked how things are going. "We're serving our customers," he adds, with pride in his voice.

The May 4 Greensburg megatornado did its best to put Southern Plains, a local grain and farm

supply/service cooperative, out of business. The co-op lost ten vehicles, including two expensive fertilizer applicators and its dry fertilizer facility. The twister also destroyed the co-op's feed mill and a 60' x 100' steel maintenance shed. Its office building was destroyed, its grain drier shredded and a retail outlet flattened. One of its steel buildings was picked up and wrapped around a grove of trees. Only the concrete elevator, the truck scale and the liquid fertilizer facility could be salvaged.

Still, says McLarty, "We were up and

running in a week."

That was good news for co-op members who were preparing for the wheat harvest when *Rural Cooperatives* visited. "In an agricultural community, we've got to take care of the growers," says McLarty. "Because the rest of the community depends on their revenue."

The cooperative is one of the largest and most important business in the small agricultural town of Greensburg. With most of the town having to start again from scratch, the co-op's continued operation may make the difference between the community's

future prosperity or a painful decline.

Employees rise to occasion

The co-op's resurrection was due in large part to the efforts of cooperative employees, some of whom had lost their own homes in the storm.

Alan Allison, who runs the elevator, saw his own house and his parents' home destroyed. But soon after the storm was over, he was at the co-op site, working to contain the damage. Three other co-op employees also lost their houses. Workers from the co-op's other facility, in nearby Lewis, hurried over to help without any prompting. They worked from 11 p.m. until about 6:30 the next morning, and then returned after only an hour of rest.

ammonia leak was another story: workers were unable to get close enough to effect repairs.

Luckily, the wind was blowing the dangerous gas away from the town. Before they could seal the leak, says McLarty, "We just had to wait until the pressure drop froze the ammonia in the tank."

Co-op workers spent the weekend picking through the ruins of the office. The roof of the small, one-story building was gone and its walls collapsed, but the crew was able to recover vital records and some equipment. A portable building was ordered to serve as a temporary replacement, and plans to replace the destroyed facilities were set in motion.

neatly filed in cardboard boxes. It took another day to obtain and set up a portable generator to power the elevator machinery. In the interim, the elevator's windows and doors — blown out in the storm — had to be replaced, as well as some of its heavy steel inspection hatches that had been sucked away by the twister. One of the legs, or chutes, of the elevator also needed to be replaced, having been mangled when an airborne car apparently hit it 120 feet above the ground.

Once the power was on, the contents of the bins were turned over to ensure against moisture damage. The liquid fertilizer facility, consisting mostly of wind-resistant steel tanks and pipes, was quickly restored to working order, as well.

Merger brought critical resources

Luck played a part in the facility's revival. With the Kansas wheat harvest only weeks away, the survival of the elevator and the truck scale meant that they would be ready to handle members' grain on schedule. And member farmers need access to supplies of liquid fertilizer to avoid damage to the irrigated corn prevalent in the area. The other facilities aren't as critical.

Another stroke of good fortune, it turned out, was the decision two years before to merge the Greensburg cooperative, then called Farmers Grain and Supply Inc., with the larger Lewis Cooperative, 25 miles away. Board member Scott Brown believes the resources made available by the merger may well make the difference between failure and recovery. "If the merger hadn't gone through, it could have been the last nail in our coffin," he declares.

Brown says that the cooperative spirit governs the relationship between the members of the two branches of the co-op. "The merged co-op was run as a single family from the beginning," he says, which removed a potentially serious source of conflict. With such extensive damage and a majority of the directors from the other location, they could have chosen to cut their losses and shut the damaged facility down.



Co-op Manager Danny McLarty, far right, discusses plans for repairs with employees in the co-op's temporary office in Greensburg. Opposite page: Denuded tree trunks are all that remain of what was once a residential neighborhood. USDA photos by Stephen Thompson

Of immediate concern were leaks from anhydrous ammonia and propane gas tanks, which had valves knocked off by flying debris. The propane leak was dealt with fairly quickly, but the By Wednesday (five days after the storm), the temporary office building had been installed and the vital truck scale was back in operation. The salvaged customer records are now "It would have been easy to just take the insurance check and move everything to Lewis," says Brown. "But the board voted unanimously to replace and upgrade. There wasn't any hesitation."

Workers from the Lewis branch of the co-op have also been a great help in getting things back together, says McLarty. "Whenever things are a little slow over there, they come over here to see if there's anything they can do."

Co-op president Ron Gruber joins McLarty in having nothing but praise for the efforts of the co-op's employees. "They really went all out, day and night, to put us back in business," he says. He also praises their suppliers. "They've all been excellent. They

deserve a lot of credit for helping us get back on our feet. The company providing the replacement chemical building, for example, usually takes eight to ten weeks to deliver an order. But for us they moved it up to six."

Gruber is especially complimentary of the Julian Lumber Co. of Antlers, Okla., which, he says, besides their responsiveness to the co-op's needs, sent up truckloads of fence posts and made them available free of charge to anyone who needed them. Even some neighboring cooperatives, normally competitors, sent help, which Gruber said is also greatly appreciated.

Long way to go

The work won't be finished for quite

a while. The office building is already framed and roofed, but it won't be ready for use until about Sept. 1. The chemical warehouse was scheduled for completion July 15, and the dry fertilizer building was scheduled for completion by the end of August. The co-op's "Crop Shop," a retail outlet, will not be completed until sometime next winter. The feed mill will not be rebuilt due to high costs imposed by new building codes.

Some debris still needed to be removed or salvaged when *Rural Cooperatives* visited the town six weeks after the storm. Facilities and equipment such as the elevator's grain drier, destroyed vehicles and dozens of smaller, less critical items still needed to

Co-op people weather the storm

The night the tornado came to Greensburg, Tom Doherty and his wife took refuge in their basement minutes before it hit. As the wind built up to a deafening shriek, the basement windows blew open, letting in a blast of rain. "I tried to close them, but they blew back in my face," he remembers.

That may have saved their lives, because if the windows had been closed, the twister's terrific suction might have ripped away the floor above their heads. As it was, the drop in air pressure was so strong, he says, "It felt like your head was just going to split!"

When the terrifying roar of the storm tapered off, Doherty, a long-time employee of Farmers Cooperative Co. in nearby Haviland, looked up to find that the outside entrance to his basement had been ripped away. He stuck his head outside to find most of his house destroyed as well. But he had little time to think about it: this tornado was so huge — later determined to be 1.7 miles wide — that it had a calm center, like the eye of a hurricane. So it wasn't long before the wind began to blow again as the leeward side of the storm slammed through town.

When it was finally over, almost everything Tom Doherty owned — house, vehicles, and the personal mementos and possessions accumulated in 62 years of life — had been destroyed or simply vanished.

Hard rain, wall of black

A few miles west of Greensburg, Southern Plains Coopera-

tive board member Scott Brown was driving toward town when he heard the tornado warning on the radio. He pulled over about three-quarters of a mile out of town and peered through the rain and hail hammering his windshield, looking for the telltale funnel cloud.

"Everything was just black," he recalls. "But every now and then there was a flash of lightning." The flashes illuminat-

ed what looked like a broad wall of rain passing in front of him. Brown thought he was witnessing only a rather heavy thunderstorm. In fact, he was looking at the tornado itself.

After the rain and hail had ended, Brown drove into town, completely unprepared for the devastation he found. "It was the worst 'rain' I'd ever seen," he says wryly.

With all electric power gone and a thick layer of cloud cover, the night was pitch black. An eerie silence hung over the town, as people began to emerge from their basements and storm



Haviland Co-op member Kenny Keen lost his home to the storm.



Amid piles of building rubble, traffic again flows through the main road intersection in Greensburg.

The drop in air pressure was so severe that it "felt like your head was just going to split!"

shelters. Most were in a state of shock. Says another witness: "It was like one of those zombie movies. People were just stumbling around with this blank look on their faces."

Doherty tells of one victim who ran up to people pleading for help to get his family out of their basement. When rescuers hurried to the scene, they found the door to the shelter opened easily, the interior was intact, and those inside were safe and sound.

Other people sobbed quietly or picked listlessly through the rubble. Southern Plains employee Alan Allison remembers that the emergency flashers of many of the smashed and crumpled cars were blinking silently, adding to the creepy atmosphere.

Brown picked his way through the rubble to the house of his friend Norman Voltz, to find that Voltz and his wife, Bev, had been injured when their house collapsed. Bev was seriously hurt; they used duct tape to strap her to a door, put her in the back of a pickup and went looking for one of the ambulances they were told was waiting in the center of town.

On the way, they picked up two young men, who helped hold the injured woman and cleared rubble for the vehicle's pas-

sage. The ambulance took Mrs. Voltz to a hospital in Dodge City, 50 miles away. Unfortunately, her injuries were too severe, and she died soon afterward.

Along its 22-mile path of destruction, the tornado took 14 lives. But its toll could have been much worse. It hit at about 10 p.m. on a Friday night, and most people were home watching television when the warning sirens sounded, thus receiving plenty of notice that the storm was about to hit and giving them time to seek shelter. If the tornado had hit earlier in the day, with people out and about, or, especially, later at night, with everybody sleeping, deaths might have numbered in the hundreds.

Heeding the alarm

In his farmhouse several miles north of town, 70-year-old Kenny Keen, a member of Haviland's Farmers Cooperative Co., heard the tornado warnings on TV. He sought refuge with his wife in the basement at 10:15, after predictions that the tornado would pass nearby at 10:34. "By 10:34 it wasn't here," he remembers. "And every time another minute went by, I'd say 'It's gonna miss us.'"

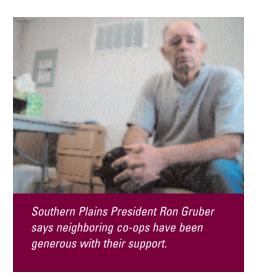
After a while, Keen decided it was a false alarm. "I'm gonna go to bed!" he told his wife. But she was more cautious. "She said, 'Don't you go up there 'til 11... wait a minute. My ears are popping!" He shakes his head. "Then, boom! The roof came off."

The twister destroyed the house, a horse stable and uprootcontinued on page 10

be replaced or repaired. Luckily, says McLarty, the grain received by the coop usually has a low moisture content and doesn't need drying. Alan Allison says salvaging equipment can be discouraging. "You look at something and think, 'Maybe we can save this.' But you look at it again and, nope, it's bent."

Meanwhile, income is down due to lost feed and fuel sales, and grain revenue has been affected by the inconvenience of making deliveries by truck through streets often blocked by cleanup efforts. Gruber has been discussing the shortfalls with the co-op's insurance provider.

Some problems are more frustrating than others, Gruber says. "The infrastructure here is just a wreck," he says. Water service was finally restored to the co-op a month and a half after the storm, and electrical service was still pending. Gruber notes that the municipal power company required the co-op to purchase its own transformer. The electric cooperatives it deals with at other locations supply transformers as part of their service. The co-op wants municipal power so it can reopen its service station, now being rebuilt,



Co-op people

continued from page 11

ed or destroyed a number of trees. Keen's two horses, however, survived unscathed. Three weeks later, as he was saddling one of the horses, he looked down and spotted a brand-new, \$100 bill he had put under his wife's jewelry box, intended as a gift for his grandson's high-school graduation. "If the horse hadn't backed up, I'd never have seen it," he chuckles.

A little closer to town, Southern Plains member Ki Gamble, his wife Kim and their two small children had a stroke of luck. "The house shook, the earth shook and we could hear Greensburg disappearing," he says. However, their 100-year-old farm house — built with extra reinforcement against high winds — survived the storm almost intact.

The rest of their durable assets didn't do so well. Their grain bins, outbuildings — including a large barn — two pickups, two semi-tractors, two trailers and a bull wagon were all totaled. Ironically, their combine, which was being serviced in town, survived the devastation. "It's ugly, but it still runs," says Gamble.

"This was shaping up to be a good year," muses Gamble. Corn prices were high, and the wheat crop was looking good. Then came the storm, which not only damaged buildings and equipment, but was part of a weather pattern bringing too much rain. The excess moisture has made it difficult cultivate corn and delayed the wheat harvest, in some cases leading to degradation of the crop.

The tornado also knocked over or destroyed 420 irrigation pivots, each costing about \$50,000. Gamble says the one good thing about the wet weather was that it has kept corn from

suffering from lack of water, giving farmers time to get their irrigation systems repaired.

Gamble is grateful that he didn't lose more. "I don't want to seem like I'm complaining," he's quick to say, "especially when some people lost everything." He also praises the help he has received from the Kansas Farm Bureau, with which he was insured.

Helping each other

Around the area, people quickly and generously came to each other's aid.

About 10 miles east of Greensburg in Haviland, employees



Ki and Kim Gamble lost their barn, outbuildings and equipment, but their 100-year-old house survived the storm.

providing a much-needed fuel source to the community.

Ironically, one of the biggest potential problems facing the cooperative stems from the rebuilding effort. Government officials want to use the opportunity to improve the traffic pattern through the town.

Unfortunately, the proposed traffic plan would cause serious difficulties for trucks using the elevator and truck scales, forcing them to make long detours and making it difficult for them to make turns entering and exiting the facility. Gruber has been conferring

with state and local government officials, and is working to make sure the co-op's needs are accommodated.

The co-op difference

The decision to rebuild and improve the Greensburg facility illustrates an important difference between the rural cooperative culture and that of many other businesses. A business run solely for the profit of investors, faced with the same circumstances, might well have decided to cut costs by shutting down its damaged facility and consolidating its operations. Southern Plains instead chose to renew its commitment to a community that will need many years to recover from a crippling disaster, because its directors see serving that community as part of its mission.

That commitment will mean spending about \$1 million over and above the insurance payout, leaving the co-op with a substantial debt. "But the farmers are still going to be here," says Brown. "We knew we'd be serving the same number of acres we always served. That made the decision easier."



Alan Allison recalls the eerie sight of emergency flashers still blinking on crumpled cars.

of Farmers Cooperative Co. jumped into action. Some immediately drove to the site of the disaster to help any way they could. The manager of the co-op's newly acquired service station opened the facility at midnight, ready to serve any vehicles that might need fuel. The co-op also loaded and sent a tanker trunk to Greensburg to provide fuel for vehi-

cles involved in the rescue effort.

A friend of the Keens offered them an empty furnished house, saying they could stay there as long as they liked. Many others in the area have taken storm victims into their homes, in many cases people they'd never met. Local church groups have organized much of the aid, offering shelter and food to whoever needs it, and the Kansas Cooperative Council set up an emergency aid fund.

Scott Brown owns a real estate and auction business on the eastern edge of town, in a narrow strip that was untouched by the tornado. He's put in 20 new telephone lines and offered free space to any local business that needs it. Two young children play in his office. They belong to one of his employees, who has nowhere else to keep them during working hours.

Brown was preparing to move into his "dream house" in Greensburg, bought only days before the storm. "I lost it," he says, "but at least I had my other house to go home to." That house, in a nearby village, is also temporarily sheltering two families put out by the storm.

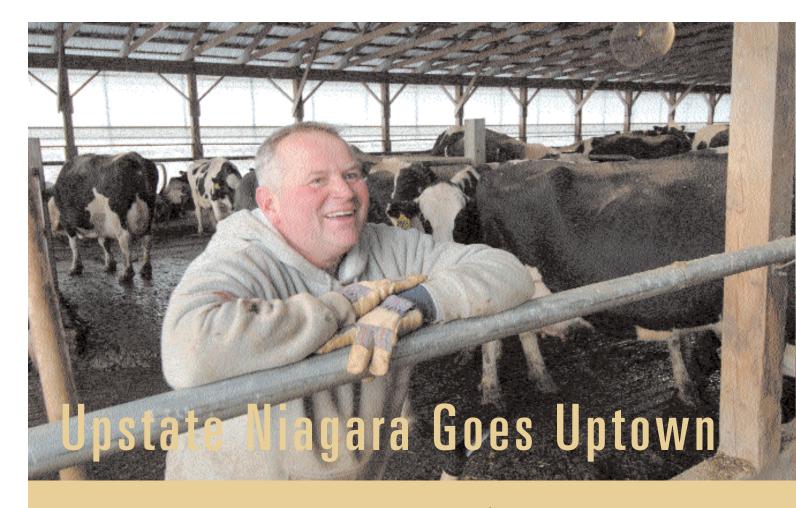
People in Greensburg are especially complimentary of organizations such as the Red Cross and Salvation Army, both of which were quickly on the scene and are still providing vital services. And a number of smaller groups have showed up to help with the gargantuan cleanup effort, which will take many months. Many of their members stand out because of the brightly colored tee shirts they wear.

Some doubt that the town can make a full recovery from the damage. Brown points out that most of the low-income housing won't be available even after rebuilding, although a USDA Rural Development-funded multi-family housing facility survived the storm and was repaired with agency funds. "We might lose half our population because of that," he says. "And then, would the grocery store come back?"

Doherty now stays with his son in Bucklin, about 20 miles to the west. He says the co-op he works for "has been wonderful," with financial and other help. But, he says, "the worst thing is not knowing what I'm going to do." His wife worked at the local ALCO variety store, which was destroyed by the storm, and it's not known if it will be rebuilt.

Worst of all, he says, his house insurance covered only what he owed on the mortgage, and plans to put in a traffic bypass call for his property to be condemned. "I guess I'll just have to take whatever they'll give me for it," he says ruefully. "I'm starting all over again with nothing. I'm back at 18 years old, only I'm 62.

L



Team effort provides financing for modern, \$35 million dairy plant



hen Upstate Niagara Cooperative Inc. decided in 2004 to build a new dairy processing plant to replace its century-old facility in Buffalo, N.Y., hundreds of member dairy farmers and the local community

welcomed the news.

Building a larger, more modern dairy plant in West Seneca, N.Y., about 20 minutes outside of Buffalo, promised to position the prominent Northeast co-op for greater production and market growth. It would keep one of the co-op's processing operations in the area, giving local dairies a home — and added value — for their milk. And it would boost the employment base.

But the plant's estimated \$35 million cost meant significant capital expansion in costly New York State, posing a "big risk" for the cooperative, says Ed Luongo, Upstate Niagara's chief financial officer. While the co-op's 430 dairy producer-members do a stellar job of producing milk — to the tune of 1.6 billion pounds annually — they weren't in a position to write checks to cover the multi-million-dollar price tag for the new plant's construction.

"We needed financial partners who could either lend us the money or reduce our costs," Luongo remembers. "And we found both."

Financing partners

Chief among Upstate Niagara's financing partners were three Farm Credit System institutions: CoBank, which served as the lead bank, and two Farm Credit associations, Farm Credit of Western New York and First Pioneer Farm Credit. In addition, much of the new plant's equipment is leased through Farm Credit Leasing, a CoBank subsidiary.

CoBank specializes in financing U.S. agribusinesses (particularly cooperatives), as well as rural communications and energy systems and agricultural exports. Although it's based in Denver, Colo., CoBank has other offices around the country, including the Springfield, Mass., banking center that worked with Upstate Niagara.

"CoBank really stepped up to the plate and was willing to take the risk with us," Luongo says.

To help fund the \$30 million that Upstate Niagara sought to borrow, CoBank turned to the two Farm Credit affiliates



"By creating a more efficient facility, we're a tougher competitor," says Upstate Niagara's CFO Ed Luongo (above, right) with Dan Dunn, the plant manager (center) and Lawrence Webster, the co-op's chief operating officer. Opposite page: Dave Tillotson is one of the co-op's 430 dairy producer-members who generate 1.6 billion pounds of milk annually. About 665 million pounds of member milk is processed by Upstate Niagara annually. Photos by Larry Laszlo

with New York branches and decades of experience in capitalizing agricultural businesses. Farm Credit of Western New York is based in Batavia, N.Y., about an hour's drive east of Buffalo. First Pioneer Farm Credit has nine branch offices in New York State.

The funding partnership among the three reflects a growing trend in the nationwide, federally chartered Farm Credit System, which has been around since 1916. Increasingly, System members like CoBank are partnering with other Farm Credit institutions, and even with commercial banks, to provide the sizable funding that today's agribusinesses need.

"Some might say that combining three lending institutions on a single transaction might have been easier not to do," says Tom Cosgrove, the CoBank relationship manager who worked closely on the Upstate Niagara deal. "But we all worked hard to make it happen."

To meet Upstate Niagara's funding need, CoBank lent \$20 million, with the two Farm Credit affiliates each adding \$5 million. The resulting \$30 million meant Upstate Niagara was on its way to building its new plant. But the co-op didn't stop there.

Adding tax breaks to the deal

Besides borrowing money outright, Upstate Niagara looked for ways to reduce the costs of its new capital expansion. Community support for the plant investment seemed feasible. After all, not many \$35 million projects pop up in Western New York. In West Seneca (population about 45,000), the Upstate Niagara plant would bolster the employment base and generate additional property taxes to help pay for schools and other public services.

As hoped, Upstate Niagara soon found a cost-saving opportunity through the Erie County Industrial Development Agency (ECIDA).

ECIDA is the economic development corporation for Erie County. The New York State Legislature created the agency in 1970 to provide economic incentives, such as tax abatements and grants, to private-sector companies undertaking capital expansion in Erie County. The agency is self-funded; 90 percent of its budget comes from fees.

"Upstate Niagara was considering other sites for its new plant, and we wanted to make Erie County as attractive as possible," says ECIDA's Dave Kerchoff. Because of Upstate Niagara's "significant capital investment in West Seneca," Kerchoff says, ECIDA provided the co-op with a package of tax incentives and abatements that will save the co-op \$6 million over 15 years.

The package included a salestax reduction on building materials and non-processing equipment, such as forklifts and computers. A property tax abatement, worth \$3.5 million, was also part of the overall package.

Upstate Niagara found another financing partner in the New York State Energy Research and Development Authority. The agency provided a subsidized loan to the co-op for installing energy-saving equipment in the plant.

As promised, Upstate Niagara's manufacturing investment empowered the West Seneca community, using local

vendors and companies to build the plant. The co-op's old plant even took on a new life when it was sold as a local car museum.

Delivering the goods

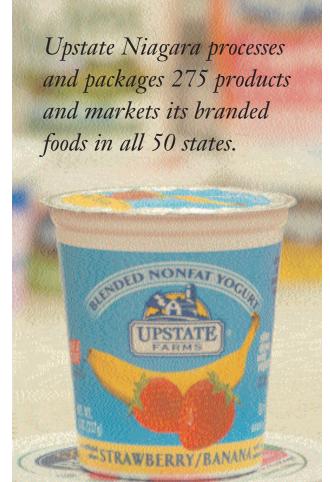
Since the new plant produced its first container of yogurt in May 2006, it has more than met Upstate Niagara's expectations. The facility processes 110 million pounds of raw milk annually, twice the old plant's capacity. As a result, the co-op has nearly doubled the capacity of its cultured products line, jumping from 50 million pounds to 90 million pounds a year. Sales rose to almost \$500 million last year, up by about 9 percent.

"By creating a more efficient facility, we're a tougher competitor," says Luongo.

A post-plant merger with neighboring Niagara Milk Cooperative also helped Upstate Farms strengthen its market position. Upstate Niagara now ranks among the top 20 U.S. dairy cooperatives.

At 205,000 square feet, the new plant is twice the size of the old facility, which stood three stories tall. The new facility stands only one story tall, but its high ceiling allows for "better utilization of space," Luongo says. In the plant's modern cooler warehouse, workers can stack five pallets of finished products atop each other to reach 35 feet high.

A computerized inventory system helps with stocking and distribution of the plant's 275 products. Trucks can unload 330 gallons of milk per minute at two bays. Two robots can



stack 50 cases per minute for shipping. New technology in the plant has allowed the co-op to extend the shelf life of its yogurt products from 45 days to 90 days.

The plant's efficiencies and newly increased product lines "will pay for the plant over the next eight years," says Luongo.

Sold on the plant

That's good news to co-op members such as Dan Wolf, chairman of the board of Upstate Niagara. His 300-cow Holstein dairy near Lyons, N.Y., has produced milk for the co-op for decades.

"We decided to move forward with the new plant because we saw an exciting, bright future for our products," says Wolf. "We also knew that if you're going to grow, you can expect an increase in debt. You just have to concentrate on making the business work."

What sold the project, Wolf says, was a series of meetings with members to explain the process of building the \$35 million plant and marketing its new products. "Not one member voiced opposition to the plan," he recalls.

The new plant "is performing beyond expectations," both financially and with the products it creates, says Wolf.

Today, the plant's 142 employees produce the quality yogurt, cottage cheese, sour cream and dips that have earned the co-op strong brand recognition in the market.

At its three other plants in Niagara Falls, Buffalo and Rochester, the co-op processes fluid milk and produces juice, iced tea, lemonade and eggnog. The co-op also owns 86 percent of the O-AT-KA processing plant in nearby Batavia. In all, Upstate Niagara markets its dairy products and beverages to all 50 states under its Upstate Farms, Bison and Intense brands.

As Wolf and Luongo see it, Upstate Niagara's major plant undertaking proved to be a win-win situation for the co-op and the region it calls home. "By strengthening our competitive position, we've helped ensure that jobs stay in western New York," Luongo says. Moreover, he adds, "the new plant will allow us to capture our next generation of customers."

Editor's note: This article is an expanded version of one which originally appeared in CoBank's 2006 annual report. Learn more about Upstate Niagara at: www.upstatefarms.com.



Jim Erickson

Southern States Cooperative, Richmond, Va.

im Erickson is director of corporate communications, member relations and public affairs at

Southern States Cooperative, a regional farm supply and services operation based in Richmond, Va. Erickson recently announced plans to retire, ending a nearly four-decade career working with a number of co-ops involved in activities ranging from grain and milk marketing to food processing and farm credit. He's a recipient of the Cooperative Communicators Association's Klinefelter Award for career achievement.

After his Aug. 31 retirement, Erickson plans to return to the Midwest and will live in the St. Louis, Mo., area. He plans to remain active in the cooperative and agribusiness arenas because, as he puts it, "After all these years, I can't imagine walking away from co-ops cold turkey."

Q. How did you first become aware of cooperatives and start working with them?

A. A friend from my days of working at a daily newspaper in Illinois called me one day in 1969 to ask if I was interested in taking his place as director of information at Michigan Milk Producers Association (MMPA), a milk marketing co-op based in the Detroit area. He was planning to leave, and the people there had asked him for recommendations on a successor. My response was I knew very little about dairy farming and nothing about milk marketing and cooperatives. He said if I were interested and willing to learn,



"An organization earns credibility and the support of stakeholders by how it communicates when the times are bad, not when they're good," says Jim Erickson (right), checking the inventory at a Southern States co-op store. Photo courtesy Southern States

MMPA had great people who would teach me whatever I needed and wanted to know. I ultimately took that job and learned he was absolutely right. Jack Barnes and Glenn Lake, then the general manager and board president, respectively, were the best teachers and mentors anyone could ever hope to have.

Q. What positions have you held during your co-op career?

A. In addition to member and corporate communications, I've worked in governmental affairs and member relations. I've had those responsibilities at several different types of co-ops – including MMPA, the Farm Credit System, what is now CHS, Inc., and Southern States. As a result, I've learned a lot more about co-ops and agriculture than I ever would have imagined growing up as a city kid. Although never part of my formal

responsibilities, the workshops in board-management relations I've conducted for co-op directors, business writing classes for co-op employees, and manager seminars on workplace communications have been equally enjoyable.

Q. Why did you choose to devote so much of your life to working with coops?

A. That's easy: the people. First, farmers are absolutely great people to work with. In addition, people who work with cooperatives and enjoy working with farmers have a lot in common. I've also enjoyed the mental challenge. Agriculture is technology-driven and changes occur regularly. Staying current with all that, along with all the complexities of business operations in general, keeps you on your toes.

Q. How have co-ops changed during your career and how has the communicator's job adjusted to those changes?

A. As with most businesses, co-op operations have become much more complex. The pace of those operations also has increased considerably, and there's much more riding on every decision made. Those general trends have affected everyone in cooperatives to a greater or lesser extent. But I can't think of anyone whose job has changed more than the communicator's. Consider the impact of the personal computer on the communicator's daily work activities, for example. My primary tools for getting the job done more than 38 years ago were a phone and an electric typewriter.

The phone still is important but my phone today is linked to my computer. That computer also has software for email, word processing, graphic design and publication layout, photo editing, producing and using visual aids, making and keeping track of my departmental budget, keeping a data base of names and addresses, and on and on. In short, today's communicator is much more productive because of the technology available. That's good news when you consider the greater contributions a communicator can make to any organization. But, depending on the communicator's career goals, it can be a mixed blessing. If communicators have the interest and abilities to take on other management roles, they may find such opportunities limited if they're viewed primarily as "techies."

Q. What's your most memorable experience working for co-ops?

A. It's hard to limit a response to one. Let me list several:

Most stressful — Dealing with communications, member relations and public policy issues associated with the dairy feed contamination disaster that hit the Michigan dairy industry in the 1970s.

Funniest — The dark, cold December evening in southern Kansas when my colleague Jim Brownlee and I were

getting what we hoped would be dramatic nighttime farm photos for an introduction to an audiovisual presentation. Trying to get the best angle for a shot of new dairy facilities at the farm, I jumped from a large concrete pad (where cattle were held before milking) into what I thought was a grassy area. The lights from the new building didn't enable me to see the ground, but I knew it wasn't more than two or three feet down.

I was right about that...but instead of landing in a grassy area, I went up to my knees in manure. One of my shoes came off as I struggled to get out and I opted not to go digging for it. When I finally climbed out, Jim and the farm owner took me into the milk house and hosed me off, which wasn't easy, because they were laughing hysterically at the time.

The hosing down did a decent job but couldn't remove all the remnants (read, odor) of my plight. In selfdefense, Jim had his head out the car window in the frigid air during much of the 90-mile trip home.

Most rewarding – The success Southern States had last year in getting the Kentucky legislature to exempt cooperatives from a new alternative minimum tax, a levy that eliminated the long-held principle of taxing co-op earnings only at the member level. That impact on co-ops was an unintended consequence of a major tax/budget package, and we were lucky even to spot it in what was a lengthy bill. Had we not been successful, the tax would have affected the bottom line and patronage returns of all co-ops doing business in Kentucky. More important was the fact the tax concept easily could have spread to other states and affected many other co-ops.

Most thought-provoking — Meeting and getting well acquainted with the late Jerry Litton, the U.S. representative from northwest Missouri, who convinced me early in my career of the benefits the FFA organization provides to young people. He was an extraordinary example of those benefits. Had he and his family not been killed in

a plane crash the night he won his party's primary election to run for the U.S. Senate in 1976, I'm convinced he one day would have been a presidential candidate.

Most challenging — Those involving member, employee and news media communications when the co-op is facing a major issue, especially financial problems. My personal philosophy is that an organization earns credibility, and ultimately the support of its stakeholders, by how it communicates when times are bad, not when they're good.

Q. What is the greatest opportunity coops are missing when it comes to communications?

A. As I just mentioned, any organization, including a co-op, can react in different ways when facing a tough problem or issue. One is to batten down the communications hatches in the belief that what we don't say can't hurt us. If the problem is financial and costs must be cut, another reaction is to consider communications expendable. I would argue that communications take on added importance and value when the co-op has problems. Failure to communicate when the issue or problem is difficult leaves a vacuum that something inevitably will fill. If the organization directly involved — co-op or otherwise — isn't proactive in its communications, it's a safe bet that rumors, innuendo and other negative information will fill the vacuum. That's not only harmful in the short term, it also chips away at the organization's credibility. Longer term, loss of credibility is even more serious.

Q. Any advice for co-op communicators that would help them do their job better?

A. Build your own credibility not only by communicating in a professional manner, but also by learning the ins and outs of the co-op and its members. Communicators are in a unique position to be a "go-to" person in a co-op if they prepare properly for that role.



High Desert Milk Inc.

Burley, Idaho





hat is High Desert Milk Inc.?

High Desert Milk is a producer-owned cooperative formed in

2001 by six progressive dairymen who had a desire to increase the return on their milk and create a more stable milk market. The co-op owners milk 22,000 cows and farm 30,000 acres in Cassia and Twin Falls counties in southern Idaho. Burley is close to the Snake River, about 150 miles from Boise. Another goal of the co-op owners is to make Burley a better community in which to raise their children and grandchildren, says co-op President Dan Ward, who farms with his father, Glenn Ward.

Profile of a typical member:

All co-op members are second-generation farmers and dairyman. All graduated from a local high school and returned to the Burley area to dairy farm and raise their families. The largest co-op owner milks 10,000 cows and farms 10,000 acres. The smallest owner milks 700 cows and farms 1,000 acres.

Major project now before the co-op:

Simplot closed a potato processing plant here in 2003, costing the area about 700 jobs, and a Kraft plant also closed earlier this year (although another company has since opened a smaller operation in that plant). "But this has been making all farmers nervous about their future markets," says High Desert Milk General Manager Karl Nelson. So the co-op is building a new milk plant to help create

a reliable, local market for members' milk. Ground breaking was held June 4 for the multi-million-dollar milk processing plant at 1033 Idaho Street in Burley. The plant should be completed by April 2008, and will process 2 million pounds of milk daily, with an annual output of 65 million pounds of dried milk. The product will be sold under the co-op's own High Desert Milk label. The plant will hire 30 workers in its first phase, with more to be hired as two subsequent phases of plant expansion are completed on the co-op's vertically integrated business.

"Because this was considered a



Plant manager Karl Nelson (left) is congratulated by Roger Madsen, Idaho's director of labor, at the groundbreaking.

historic day for the dairy industry in southern Idaho, and even the entire state, the event was turned into a community celebration," says President Dan Ward. Attendees included Idaho Gov. C.L. "Butch" Otter, among many other state and community leaders. Afterwards, United Dairymen of Idaho sponsored an old-fashioned ice cream social for the entire community.

How is the plant being financed? Owners of High Desert Milk are using their own money for a 20 percent down payment, with the balance being financed by Northwest Farm Credit. The co-op has also received grants from the state of Idaho.

Overview of co-op operations and marketing:

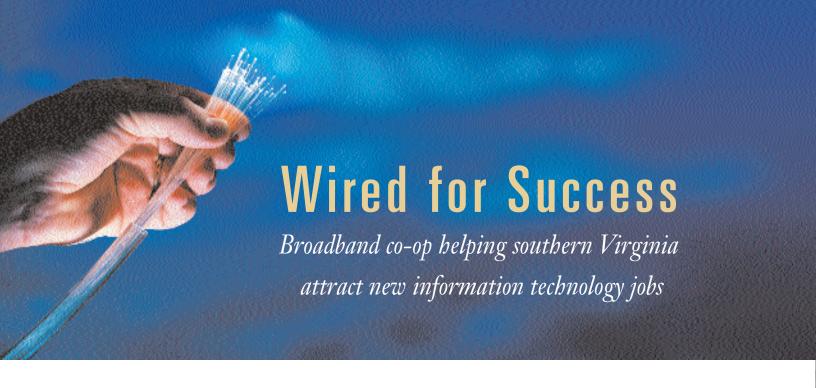
About 80 percent of High Desert milk will be marketed domestically, while the other 20 percent will be sold on foreign markets. High Desert Milk will operate with four separate divisions:

- Pharmaceutical and Supplies will sell supplies needed for dairy and livestock operations.
- Milk Marketing the co-op markets milk to various processing plants in the area.
- Plant Manufacturing and Milk Processing — the co-op will process milk at its own plant, now under construction.
- Organic Milk Production and Marketing — Currently, one member is producing organic milk in one barn, with two more organic barns under construction.
 Thousands of acres have been certified for raising organic feed.

What has been the biggest challenge facing the co-op?

"The biggest challenge was deciding to build a plant on our own without the help of outside investors," says Ward. "The second main challenge is developing a management team to make our dreams come true."

Contact: Karl Nelson, General Manager, at: (208) 878-6455, or knelson@yahoo.com ■



By Dan Campbell, Editor



s David Hudgins looked at the 22 other faces gathered around the conference table, someone said: "Anyone who has a better idea, put it on the table." The response was dead silence.

None of the federal, state and local government representatives or economic development officers who had gathered that day seven years ago in Chatham, Va., could think of anything more important than building a broadband network to bring new jobs to southern Virginia. New jobs were desperately needed to help offset a wave of layoffs that had swept over the largely rural region of Virginia along the North Carolina border (often referred to as Southside Virginia).

Any doubt that the region was being battered by the economic tsunami of globalization had been laid to rest during the three months before the meeting, says Hudgins, director of economic development for Old Dominion Electric Cooperative (ODEC). A rash of textile and furniture manufacturing plant closures had thrown at least 10,000 southern Virginians out on the street. And the region's other mainstay industries — tobacco and coal — were following textiles and furniture manufacturing down the slippery slope.

"The whole underpinning of the natural resources-based economy of Southern Virginia was collapsing," says Hudgins. "Every one of those industries had been dramatically impacted by government action, whether it was anti-tobacco legislation or trade agreements that hastened the loss of our textile and furniture industries. These were the pillars of our economy; without them, our whole way of life in southern Virginia was changing."

Building a backbone

The conclusion reached that day was that the lost industries were not coming back. The challenge, then, was to speed the evolution of the region from a resource-based economy to a knowledge-based economy.

"The question was: how could we help Southside Virginia become part of the new economy?" says Tad Deriso, now the general manager of the Mid-Atlantic Broadband Cooperative but at the time a consultant to ODEC. "We needed to show that we were open and ready for new, technologically advanced business."

To attract these new industries, it was agreed that the region must have access to fiber-optic broadband service (although at the time, the talk was of "high-speed connectivity," rather than "broadband," Hudgins recalls).

The Regional Backbone Initiative for Southside Virginia was launched as a marketing effort to "re-brand" southern Virginia to the business community.

But as is often the case in rural America, the big telecoms weren't interested in the high overhead cost and relatively small profits that would be generated from building a broadband network to serve a low-density rural region. They were not of a mind to "build it and see if they would come."

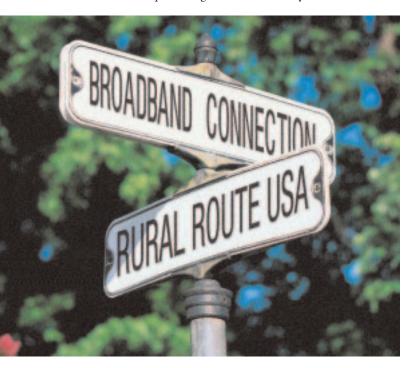
So Old Dominion Electric Cooperative, a generating and transmission co-op headquartered in Glen Allen, Va., took the lead role in the effort, first pursuing it as a for-profit subsidiary of the co-op. "But then the telecom market fell apart," says Hudgins. So the effort shifted to Richmond and a proposal to create a Rural Broadband Authority. But that drew protest from the telecom industry, and the effort failed in the state's General Assembly.

It was then that Hudgins started thinking co-op, and he soon got the support of ODEC's CEO Jack Reasor and the

senior management team to pursue creation of a broadband cooperative. "It seemed that a bottom-up, grassroots co-op would be the only way to cut across the rivalries of working with all of these local political jurisdictions: 20 counties, four cities and two towns," he says.

ODEC gave Hudgins approval to have its attorneys start working up the legal papers needed to set up an independent broadband co-op. In November 2003, the Mid-Atlantic Broadband Cooperative (MBC) was born, with offices in Danville and Richmond. Hudgins now serves as vice chairman.

"ODEC got the various partners involved and convinced them of the feasibility and necessity for it," says Deriso. "They said 'you must put aside your petty political differences and work together in this co-op if you want to get it done.' They got everyone looking at the big picture, realizing that now was the time to get it built. Otherwise, we would all still be squabbling for the next 10 years and would



never be able to dig ourselves out of this economic hole."

Co-op builds 700-mile network

The goal for the new co-op was to build 700 miles of broadband cable through southern Virginia, providing service to businesses that need a large amount of bandwidth and which create a lot of jobs. "With Tad Deriso's guidance and commitment, we installed a 144-fiber, world-class fiber-optic cable," says Hudgins. "The core is OC-192 capable, with redundancy and self-healing rings and with all Nortel carrier-grade electronics."

As a broadband wholesaler, MBC's membership is primarily made up of telecom and Internet service providers and phone co-ops. These members, in turn, serve the retail broadband business market.

"The users are the type of companies that often hire

hundreds of people and are willing to spend \$800 to \$1,000 per month for service," Hudgins says. The network was not designed for residential or very small businesses.

"As a co-op, our telecom members will share in our success in the form of capital credits," Deriso says. But the concept of a co-op drew funny looks at first from some of the larger businesses approached about becoming members.

"New York attorneys would say, 'what the heck is a co-op?' Deriso recalls. "So we talked about becoming a member and how you paid a one-time, \$500 membership fee [for a Class A membership; there are four other classes of membership requiring higher fees] and about capital credits. 'What's the catch?' they asked. We told them there was no catch, and explained how a co-op has a different mindset than a forprofit company — how we're not trying to make millions of dollars for stockholders, but rather to serve our members, create jobs and boost the region's economy."

Today, MBC has more than 30 private-sector telecom providers as members and has been adding an average of two members per month since the network went into operation last October. These members range from large, international businesses, such as Hibernia Atlantic (a Dublin, Ireland-based firm that provides European and U.S. customers with direct, trans-Atlantic connectivity and support services) to relatively small, local Internet service providers.

Financing the co-op

Raising the money to launch the network proved challenging, although ultimately MBC got the spark it needed via a \$6 million grant from the U.S. Department of Commerce's Economic Development Administration (EDA). Hudgins felt he was getting nowhere at first with EDA, but one of its directors eventually handed him three or four pages of questions about the project, telling Hudgins to "go do your homework, then come back and see me."

Hudgins soon answered every question, describing both the need and the practicality of the proposed broadband coop. That was the turning point, and EDA awarded the coop the \$6 million grant, which was soon matched by the Virginia Tobacco Commission (VTC). The Commission, which awards funds received from tobacco litigation for economic stimulus projects, eventually invested \$34 million in the coop. Hudgins says leadership came from State Senator and VTC Chairman Charles Hawkins and State Delegate Clark Hogan, chairman of the VTC technology committee.

The network was built on time and under budget, using a contractor (the co-op itself operates with only three employees). Hudgins says the co-op is on track to begin breaking even in the spring of 2008, and is expanding the network with new laterals. "It's a mile here, three miles there – like a spider web that just keeps growing incrementally," says Hudgins.

Long-haul cable routes are also being built, connecting southern Virginia to Atlanta, D.C. and the Hampton Roads/Norfolk area. "Those aren't rural markets. But from

an economic development perspective, it allows us to provision circuits from major research and development hubs and connect them with Southside Virginia," says Hudgins.

"Our customers can now open an office in Southside Virginia — with its lower taxes, affordable housing and a motivated workforce — and still connect to a broadband network as good or better as they would get in metro-D.C. or most other metro areas, and using Infiniria" says Deriso.

New businesses opening

There are signs that the strategy is working. In Russell County, two new data centers have opened, representing investment in excess of \$23 million and 300 jobs. Northrop Grumman Corp. is building a backup data center in the Russell County community of Lebanon, a \$30 million project that will create about 433 jobs. "Overall, that's a combined investment of more than \$50 million and more than 700 jobs created," notes Hudgins.

Larry Carr, executive director with Cumberland Plateau Co., a nonprofit dedicated to business and economic development in southwest Virginia, says broadband availability was essential to attracting Northrop Grumman and CGI, a software engineering firm with 375 jobs. "There would have been no way to attract businesses like that without broadband," he says.

Lebanon has traditionally been dependent on the coal industry and manufacturing jobs associated with coal. And while the coal industry has made something of a comeback there in recent years, it still creates far fewer jobs than in the past. Carr says five Fortune 500 companies will now have facilities in the town, and the new, Southwest Technological Development Center is also being established in a refurbished strip mall, where it will be used by several higher education institutions to help train software engineers.

The furniture industry has even bounced back a bit, with a new 2-million-square-foot Ikea furniture manufacturing plant being built in Danville, the first such plant built in the United States for the giant Swedish furniture maker/retailer.

In South Boston, Va., Lindstrand Industries has opened a plant that makes helium dirigibles and military surveillance equipment under contract to the Department of Defense.

Before the development of a broadband backbone in southern Virginia, "we weren't even getting a second look from business," says Neal Noyes, an EDA director who not only helped secure the initial grant for MBC, but also helped direct a previous \$1.5 grant to develop broadband in southwest Virginia and who has supported many other investments for industrial parks and utilities in the region.

Promoting distance learning

The new broadband backbone also links to educational institutions, making distance learning more readily available to support both higher education endeavors and the needs of industry. Even doctoral and masters degrees can now be pursued via distance learning without leaving southern

Virginia, Noyes says.

"There is nothing more important than workforce initiatives that build the skills and knowledge workers need to compete on a level field with metro areas," he says. Noyes credits Virginia Tech for providing research on the importance of broadband for economic diversification of the region, and for technical guidance in how to get it done.

"Connectivity is an essential part of the long-term strategy for the economic revitalization of southern Virginia,"



says Noyes, a member of the Virginia Tobacco Commission. The new jobs coming to the region "would not have been possible absent very-high capacity, redundant broadband," he says, citing the example of Holston Medical Group, which performs record management for hospitals and clinics, and is building a facility in Duffield in Scott County.

While the network was not built to serve the residential market, some large new residential developments are tapping into it. Just outside South Boston, the first 18 units of a planned, 100-unit, "smart-wired" town home development have been built by general contractor John Cannon. Each home has state-of-the-art broadband service that will especially appeal to anyone who wants to work out of a home office, Cannon says.

With gasoline prices soaring and the roads in many major cities facing rush-hour gridlock, Cannon believes the "home sourcing" movement is going to grow rapidly in the years ahead. For example, he points to a major U.S. airline that now allows all of its reservation clerks to work out of their homes.

Cannon worked with MBC and his local Internet service provider, Gamewood in Danville, to bring high-speed connectivity to his Edgewood Town Homes development. The work paid off, and each of his town homes boasts CAT-5E telephone cable (going in and out), as well as RG-6 coaxial cable to each outlet, all of which are connected to a smart-wire panel, and from there to the MBC fiber-optic cable.

The monthly homeowner's association dues include 1 megabit of service, which Cannon says is more than enough for most people. But for an extra fee they can increase their capacity as much as they want.

"MBC is the type of partner rural Virginia needs to compete in the 21st century." Cannon says.

Fast train to Clarksville

Hopes were also high as of this writing (in late June) that Clarksville, Va., will be selected this summer for a \$600 million data center to be operated by Electronic Data Systems (EDS), of Plano, Texas, which provides data services to the federal government. The facility would create 125 jobs

"We got them 10 megabits of Ethernet access in 37 days. We blew their socks off!"



The availability of broadband service helped Clarksville, Va., become a finalist for a \$600 million data center. Seen here at the facility in Clarksville are MBC General Manager Tad Deriso (left) and David Hudgins of Old Dominion Electric Cooperative. Photo by Valerie Garrison

in the next two years.

"The EDS guys from Northern Virginia didn't even know where Clarksville was, but when they saw the plant site, they loved it," Hudgins says. However, EDS said it had to have a fiber-optic connection, and made plans for a formal site inspection two months later.

So the race was on to get it connected. One major telecom firm was contacted, but it required a two-year service contract and wanted money up front to extend fiber into the Clarksville facility, Hudgins recalls. "So the contractor came to us, and 37 days later we had a mile and half of fiber built from our closest access point to the plant," Hudgins says. "That included getting railroad crossing permits, which alone can normally take six months. We got them 10 megabits of Ethernet access in 37 days. We blew their socks off!"

The broadband connection is just one of many reasons Clarksville is being considered by EDS, Hudgins stresses. The Commonwealth of Virginia, Virginia Tobacco Commission, Mecklenburg County and the Town of Clarksville have gone all out to offer a plethora of incentives, and Mecklenburg Electric Co-op, with the cooperation of Dominion Virginia Power, will provide a direct feed from a power station. This is needed so that in the event of a catastrophic, total power grid failure, the EDS facility is guaranteed to have power.

Concept spreading

The broadband concept is spreading to Maryland, where another broadband co-op is being formed. MBC was recently contacted by a group in southern Ohio interested in forming a broadband co-op.

No surprise then that Deriso says he is more convinced than ever that the co-op business model is ideal for bringing broadband to rural America. "At the end of the day, the co-op model fit us best because of the co-op principles of local ownership and having concern for your community. It is all about bringing a metro pricing structure to rural areas to level the playing field between metro and rural."

"I don't see any other way for rural America to survive in a global economy," adds Hudgins.

Looking back over the seven years of work to make the broadband co-op a reality, Deriso says he is glad he jumped when offered the chance to manage the co-op. "To take an idea from the concept stage to a business plan, and then get it built and to make it work – and to be held accountable if it doesn't work – that's fun," Deriso says, crediting Hudgins as the "guy who made it all happen."

The biggest frustration has been "dealing with the politics – local, state and federal," Hudgins says. And there have been many headaches over who gets to claim credit for what. "As they say, failure is an orphan, but success has many mothers."

His experiences working to make southern Virginia more economically viable have also brought home to Hudgins the need for a clearer national broadband policy and strategy, and a commitment to invest more in it.

"Korea is the most wired country in the world. We rank 18th in the world for broadband penetration, and we are dropping another spot or two every year," Hudgins says with a note of chagrin in his voice.

"To make this project happen took a combined effort at every level of government, the private sector and educational institutions. Fiber is the way to get your economy moving forward. But too many old-style politicians still just don't get that globalization is here and it is very real. There is no going back to the good old days of doing business with the same tools and strategies and hope it all works out. Failure is simply not an option."



Future of Local Food

By Jane Livingston, CooperationWorks!

he last supermarket moved out of the city of Chester, Pa., 16 years ago, after industrial flight led to a decline in the town's prosperity. That means residents have had to travel, often by public transportation, to find the food they want. Even then, the best quality, locally produced food is often out of their price range.

In 2006, a group of Chester residents who had lived, worked, worshipped and volunteered alongside one another

for many years decided to address the situation by forming a steering committee to create Chester's Community Grocery Co-op.

From the outset, this group was dedicated to providing food at fair prices, with a strong focus on linking food to health and catering to the needs and tastes of community members, four-fifths of whom are African American. In addition to opening a grocery store, plans include establishing a business incubator-demonstration kitchen and

space for other community-support endeavors.

The project was already under way when Chester native Tina Johnson attended a Sustainable Business Network meeting, where she met Kate Smith, executive director of the Keystone Development Center (KDC).

"Meeting Kate was like finding a goldmine because she provided us with insights into the co-op development process that were essential for us to set the tone and pace we wanted to move our efforts in," Johnson says.

KDC's Smith elaborates: "Our work with the Chester co-

op is part of an overall market development effort to aggregate the 'local eaters' for the local farmers and food processors." Cooperative specialists helped the Chester steering committee learn how to develop a successful consumer-owned cooperative enterprise, assisting them with strategic planning, marketing and feasibility studies, business plan development and obtaining funding.

Co-op expanding inventory

The co-op incorporated and has 170 members, who have each paid \$250 to join (\$200 is refundable if they leave the

co-op). Local produce is being sold twice a week at a mid-city, outdoor market site. The co-op plans to expand its inventory this summer to include other locally produced items, such as bakery products. Under the direction of a newly elected board, the co-op is negotiating for a store site and organizing an equity drive. The goal is to open a full-service, 8,000-10,000 square-foot

10,000 square-foot supermarket by the end of the year.

Johnson emphasizes that the co-op offers area producers what they most need to move

away from selling primarily to the wealthiest consumers at the highest prices they can get: the security of numbers. "They have to pull in the needs of the urban communities to create a sustainable system," she says, but admits this is a difficult conversation to have. "We want to support our family farmers, they are the linchpin in the sustainable food network model."

Johnson, who spoke at last year's Farm Aid gathering, acknowledges that family farmers are faced with enormous challenges as commercial agricultural operations continue to



The Chester Community Grocery Co-op is holding twiceweekly outdoor markets while its board works to establish the first full-service grocery store in Chester in 16 years.

grow ever larger. Yet, as the demand for natural and organic foods keeps racing up the charts, so does the price for the food itself.

That is not the way to develop and maintain sustainable food systems. It's not the way supply and demand is supposed to work, she gently points out.

"The farmers need to know we think their commodity is valuable, but it can't be out of reach or they'll never create a sustainable food network," she says. "I may buy an heirloom

tomato once for nine dollars, but I won't go back to that vendor."

But by forming a consumers' cooperative, Johnson explains, "We can create the market. We can create the lines of distribution. We can even come to pick up the food from the farm. I know that farmers' time is so expensive. But the farmers also need to integrate our efforts – to bring local food into the city at fair prices – into their farm operations."

Kentucky co-op feeds the Queen

Street Sense wasn't the only winner at the 133rd Kentucky Derby this year. When Chef Gil Logan, official caterer to Churchill Downs, was asked what he would be serving Queen Elizabeth when she attended the nation's most famous horse race, he replied, "The Queen has requested an authentic Derby menu, which means she will enjoy many of the same foods as everyone else... The beef will be from the Green River Cattle Co. [along with] all the other great local and organic Kentucky Proud products that are farm raised."

Despite this majestic moment, Green River Cattle Co. (GRCC) co-owner David Givens marks 2006, not 2007, as the turning point in the life of this small LLC which operates on cooperative principles. That's the year GRCC started working with the Kentucky Center for Agricultural and Rural Development (KCARD).

"Working with KCARD has been a wonderful experience," Givens says. The six-year-old company, owned by a small group of beef and tobacco farmers looking for alternatives to tobac-

co production, was floundering when Givens had a chance encounter with KCARD's Larry Snell.

Going the distance

A couple of years prior to this, GRCC had undertaken a marketing study that indicated they should develop a brand around locally grown and finished beef products. But as they moved toward this goal, they found themselves hampered by a lack of staff as well as other resources. The

pressures of — and changes within —their industry were enormous. Tensions within the group, and constant challenges from without, threatened its future.

By the summer of 2005, "The train was coming into the station and it was time for the people who wanted to get off to take the opportunity," Givens says. "So they did, and we had new members come on board." This transition infused the group with new energy and optimism. Shortly after that, Givens and Snell met.

As a result of their meeting, KCARD conducted a busi-

ness management and operations audit for the producers. Brent Lackey recalls, "We worked with the owners and management for two weeks and made several recommendations, most of them centered on the co-op's need for more planning, especially with respect to marketing."

In addition, KCARD helped GRCC's managers create three teams to address cost reductions, marketing improvements and pricing strategy. Lackey says the new mar-

ey says the new marketing strategy will increase the value of their co-op's beef by 20 percent.

Followthrough has included helping GRCC forge relationships with the likes of Foothills Country Meats and Allied Food Marketer. The latter is a connection that led them all the way to the winner's circle at Churchill Downs. (For more on this story see Kara Keeton's article in The Farmer's Pride, May 16, 2007.)



When Britain's Queen Elizabeth II attended the Kentucky Derby this year, she was served beef supplied by Green River Cattle Co., a producer-owned LLC. Flanked by the famous steeples of Churchill Downs, Chef Gil Logan (right) meets with the beef producers.

Rural Cooperatives / July/August 2007



Georgia alternative energy plant to be fueled by wood & poultry waste

By Anne Mayberry USDA Rural Development Utilities Programs anne.mayberry@wdc.usda.gov



ombine four parts leftover wood scraps with one part chicken litter, add equipment and chemistry, and you

have one of the most innovative sources of alternative energy in the nation.

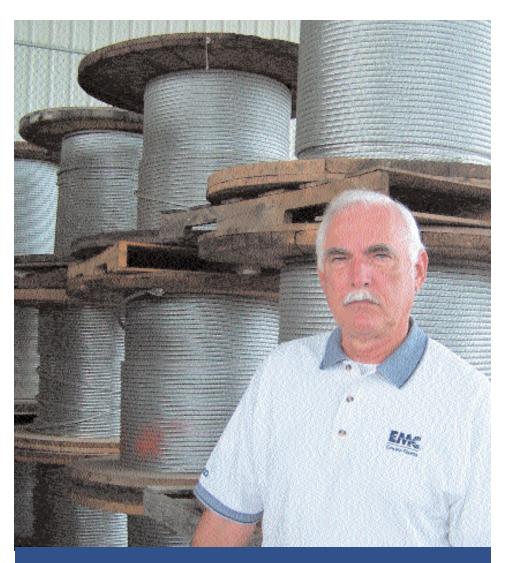
That's the idea behind Plant Carl, which will convert poultry litter and wood waste into electricity.

Construction on Plant Carl is scheduled to begin this summer, with the help of a \$28 million loan from USDA Rural Development's Utilities Program office to Earth Resources Inc., located near Carnesville, Ga. Designed to generate clean energy by converting poultry litter and woody biomass into electricity, the plant is viewed as a potential state-of-the art model that can be duplicated in other areas.

Plant Carl is named in memory of Carl Dinsmore of Dinsmore Grading, a site development company that has worked with Georgia Power and Atlanta Gas Light on projects in North and South Carolina and Alabama.

"We want to be part of Plant Carl's exciting and unique concept," says Jim Andrew, administrator of USDA's Rural Development Utilities Programs, which is providing the loan for the new facility.

Andrew says funding more renewable energy projects is a major goal of USDA. "The impact of climate



"There is plenty of fuel for this plant, with more than 3,600 poultry houses within a 20-mile radius of the site. Plant Carl will require litter from only one-half of those," says Michael Whiteside, president of Green Power EMC and CEO of Cowetta-Fayette EMC. Photo courtesy Cowetta Fayette EMC

change, the price of oil and the cost of building new plants to meet the growing demands for electricity mean that alternative sources of energy show

great promise. If these new sources of power can help meet our power needs while making contributions to clean up the environment, we want to see these operations expand to other places."

The fact that Plant Carl is generating interest is in part because it deviates from traditional sources of power generation. It supports President George W. Bush's renewable energy initiatives, meeting new policies of finding alternatives to fossil fuels.

Georgia EMCs support project

The support of Georgia's rural electric cooperatives and the growth of its poultry industry have also been key

with over 3,600 poultry houses within a 20-mile radius of the site. Plant Carl will require litter from only one-half of those. Hopefully, we will be a partner in replicating similar plants across Georgia."

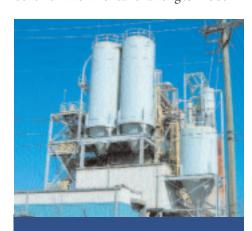
Besides supplying 20 megawatts of electrical power, Plant Carl will mitigate the impact of poultry farms on the environment. "Plant Carl is a good addition to Green Power," Whiteside says.

Billy Jones, operations manager for

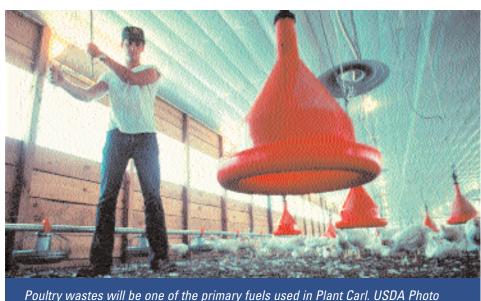
only did the rural electric cooperative utilities show strong interest in renewable energy, but recommended federal financing, Jones notes.

"It was through the EMCs that we learned about USDA Rural Development's long-term financing process," says Jones. "Have you ever tried to get a loan for nearly \$30 million? It's breathtaking." Jones credits Rural Development Utilities Programs expertise with "guiding us through the detailed process."

Plant operations will benefit the poultry industry. "This year, Georgia is experiencing the longest drought ever recorded," Jones says. "Under these conditions, chicken litter will burn land. Several years ago we had too much rain, and the runoff from the rain presents other environmental challenges." Use



Electrical plants in Georgia (above) and Kansas are being disassembled and moved to Carnesville, Ga., where the parts will be used to build Plant Carl. Photo by Billy Jones



factors that have helped Plant Carl

move from a pilot project five years ago to where it is today.

Michael Whiteside is president of Georgia's first renewable energy program, Green Power Electric Membership Corporation (EMC), and president and CEO of Cowetta-Fayette EMC, an electric cooperative utility that has been serving members since 1945, and one of the participants in Green Power. Georgia's rural electric cooperative utilities are interested in Plant Carl.

"Green Power EMC supports development of renewables," Whiteside says. "Because forecasts anticipate that our energy requirements will double over the next 12 years, renewables are expected to play a small part in our energy portfolio. The good news is that there is plenty of fuel for this plant,

Plant Carl, emphasized that extensive environmental review was among the requirements he and plant owner Charles "Sonny" Dinsmore (Carl's son) had to meet to qualify for the loan from USDA. Other requirements included private equity capital to support the operations, use of commercial technologies and a viable business model to support the servicing of the loan.

Meeting growing demand

Georgia EMCs became aware of the pilot project and liked what it saw, according to Jones. "They knew energy was there, and they knew they would need to act to meet growing demands. More homes are being built in Georgia. Rural electric cooperatives wanted to entertain the use of renewables, so they will purchase power for 20 years." Not

of woody biomass will keep additional debris from moving to Georgia's landfills.

Chicken litter production is a \$17 billion industry, currently growing at 3 percent. This growth explains the reaction from the community to Plant Carl. "We have the support of the community — this is chicken country," Jones says. "About 90 percent of the people in this area are in the chicken business. They're looking at the long term. Plant Carl is an advantage."





California olive trees are producing fruit for olive oil that now equals the quality of European olive oils. Photos courtesy Gail Della Nina

By Anne Todd, USDA Rural Development

anne.todd@wdc.usda.gov

Editor's note: For more information about the Value-Added Producer Grant program, visit the USDA Rural Development Web site: http://www.rurdev.usda.gov/.

he olive first arrived in California in the late 1700s when Spanish missionaries settled in 21 areas between San Diego and Sonoma, planting olive trees at each location. By the mid 1800s, the olive oil

industry in California was thriving.

The industry stalled, however, and struggled to right itself throughout most of the 20th century. It was only recently that a new generation of health-conscious Americans rediscovered the flavor and benefits of olive oil. Many older olive orchards have been rejuvenated and new orchards are again being planted, signaling a rebirth of the California olive oil industry.

Today, the California industry is again a vital part of the global olive oil arena. California oils are produced from a large number of olive varieties, using a wide range of methods: from traditional, labor-intensive handharvesting to new methods that rely on highly mechanized harvesting.

Olive producers in Central California are using new techniques that help control production costs, improving their ability to compete in the global marketplace. Some growers are planting "super high-density" orchards, in which trees are planted closer to one another and heavily pruned. Mechanized harvesting cuts the costs of labor. Because more trees are planted on less acreage than was traditionally required, the land costs are also reduced.

VAPG helps expand demand

The California Olive Oil Council (COOC) is using a \$241,000 Value-Added Producer Grant for marketing activities that will increase demand for this healthy food. Value-Added Producer Grants (or VAPG) are awarded annually by USDA Rural Development to eligible cooperatives and other agricultural organizations and individual producers for use in planning activities and for working capital to help market value-added products made from crops or livestock they raise.

"The funds we received from USDA Rural Development have been great for our growers," says COOC Executive Director Patricia Darragh. "We have been able to put forth a comprehensive marketing campaign, something we would not have been able to accomplish without the VAPG."

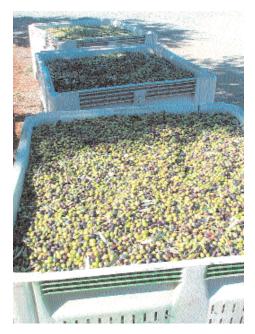
The mission of COOC, a nonprofit trade and marketing association founded in 1992, is to promote growing olives and the production of olive oil in California. It provides education to growers, producers and consumers.

The Council takes part in meetings and trade events that focus on everything from marketing olive oil to managing orchards. Membership is extended to all olive oil producers who agree to abide by COOC's quality and labeling standards, regardless of the size of their operation or amount of sales.

Web site key to marketing effort

Thanks to the grant and matching funds provided by COOC, the Council has been able to completely redesign its Web site to better meet the needs of its members, consumers and retailers. For consumers, the site contains all-new information about the health benefits of olive oil in their diet, recipes and lists

retail outlets that sell olive oil. It also provides locations where groups can taste different varieties and tour olive



groves and mills.

For producers, the site has contact information for California growers, comprehensive resources to help them as they cultivate their crop, information about COOC's certification standards and a secure site for members that provides access to exclusive marketing opportunities and other members-only information. The redesigned site now draws 5,000 to 6,000 visitors each month.

COOC also has produced new promotional materials, including an educational DVD (it comes in 10-minute and three-minute versions), which members can use at trade shows or while meeting with retailers.

The grant has also allowed COOC to take part in more trade events to showcase the California industry and its members' products. These include the National Association for the Specialty Food Trade (NASFT) Specialty Food Show in Chicago and the South Beach Wine and Food Festival in Miami. The most recent Miami trade show marked the first time the Council staff had been able to tap into the southeastern market. As a result, COOC had an opportunity to market California olive oils to major industry leaders. During

the three-day Miami event, COOC had about 3,000 visitors to its booth.

On par with Europe's finest

COOC supports certified olive oil standards and administers a certified quality control program that exceeds the strict international standards for extra virgin olive oil. Under COOC's seal-certification requirements, olive oils must:

- Be mechanically extracted without chemicals or excessive heat;
- Contain less than one-half percent free eleic acid;
- Contain positive taste elements and no taste defects, as determined during a blind tasting.

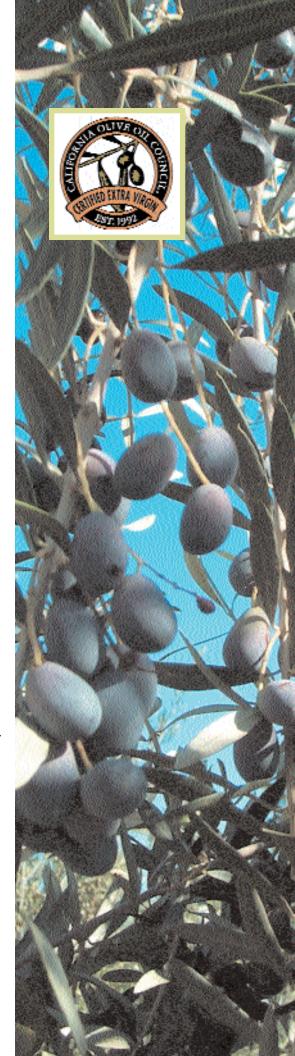
Through the seal-certification program, Darragh says COOC helps everyone, from home cooks to professional chefs, find guaranteed extra virgin olive oils for their kitchens.

U.S. olive industry expanding

Ninety-nine percent of the olive oil produced in the United States comes from California, and 10,000 acres of California farmland is dedicated to olive groves. Currently, less than half of that acreage is in production, the main reason being that trees require about three years to mature and bear viable fruit. However, over the next couple of years, more and more acreage is expected to go into production. By 2008, it is estimated that U.S. olive oil production will outpace that of France.

Domestic sales of olive oil have increased well over 20 percent each year for the last five years. In addition to the guaranteed quality of olive oil produced by COOC members/growers and the varieties available, another key benefit for consumers is its freshness. COOC growers can bring olive oils to U.S. customers immediately after harvest, at the peak of freshness. For these reasons, the popularity of California olive oil and growth in sales is expected to continue.

This fall, COOC will be participating in many more events to promote the benefits of California olive



oil. For instance, in September COOC will take part in a tasting seminar in Sacramento. In October COOC representatives will attend the San Diego Chefs Association conference.

Although COOC is a small organization in terms of the size of its support staff, its mission is large.

COOC represents more than 200 growers/producers and, including supporting members, has more than 350 members, and membership is growing.

The Council plans to pursue a second VAPG in hope of further boosting the industry through

marketing.

To learn more about the Council's mission and activities, visit: http://www.cooc.com, or e-mail: oliveoil@cooc.com. The Council can also be contacted at: (888) 718-9830.

California growers champion Tuscan olives

Gail Della Nina and her husband Don wanted to get away from the stresses of urban life and live in a rural area. So, in 1984, they bought a small farm and relocated to Byron, Calif., known for its famous hot springs and resort. Although Don's family is involved in agricultural production, neither he nor Gail had any direct farming experience when they started out.

Working with a local crop advisor and staff at the Uni-

Support and guidance from then-COOC Board President Bruce Golino helped the Della Ninas kick-start their operation. Golino, owner of the Santa Cruz Olive Tree nursery in Watsonville, introduced them to olive production techniques and helped them acquire starter trees. Gail and Don opted for young Mediterranean varietals (two- to three-year-old trees) that were shipped from a nursery in Tuscany, Italy.

The Della Ninas planted the trees in September 2003 and, although the trees were young, they produced olives that same October. The Della Ninas harvested and pressed 10 gallons of olives that season. The "Olio Bello d'Olivo" (which translates as "beautiful oil from the olive") brand was born.

Gail and Don have been members of the California Olive Oil Council (COOC) since they started their orchard and say they have reaped many benefits from that association. "Anyone who's a serious olive oil producer would be a fool not to use them [COOC]," says Gail.

COOC alerts the Della Ninas about every upcoming

event where they can market their olive oil. Additionally, when Council staff attend a marketing event, they bring samples of Olio Bello d'Olivo for people to taste. Gail reports that membership in COOC has brought them many new customers from all over the country.

Olives from their orchard, the only one in

Byron, are hand picked and cold pressed into both filtered and unfiltered extra virgin olive oil. In 2006, their orchard produced 500 gallons of oil, which carries the COOC seal.

Olio Bello d'Olivo has won many awards. In 2006 alone, it won five awards, including two silver medals and a bronze medal at the International Olive Oils of the World competition. It won two gold medals at the San Diego Wine and Food Festival.

— By Anne Todd ■



Olives are harvested at the Della Nina orchard. Olive oil tasting in gourmet food shops (right) is one marketing tool being used to expand demand. Photos courtesy Gail Della Nina

versity of California at Davis, their farm began to take shape. Because their soil had high levels of boron, they were encouraged to grow alfalfa to help

replenish the soil with needed nutrients. They produced alfalfa for their first five years on the farm.

In 2003, because of low yields, it was clear that the alfalfa's development cycle had waned, and it was time to start a new crop. Gail and Don knew that olive trees fared well in the region and were suited to their farm's boron-rich soil. Don's Italian-American heritage also influenced their decision to grow olives.

Mica, Abernathy, Ditsch named top co-op communicators

hree of the nation's top practitioners in the art of cooperative communications — including the leader of the nation's credit union sector, a veteran co-op editor and a dynamic young communicator — were presented in June with the top awards of the Cooperative Communicators Association (CCA).

For his dedication to co-op communications, Daniel A. Mica, president since 1996 of Credit Union National Association (CUNA), which serves nearly one third of the nation's consumers, was named CEO Communicator of the Year at the CCA Communications Institute in Williamsburg, Va.

CCA News editor Donna Foster Abernathy's more than two decades of excellence in cooperative communications earned her the 49th annual H.E. Klinefelter Award, which recognizes career achievement and "dedication to improving the standards of cooperative communication." Teri Ditsch, communications director for AMAROK, an Arizonabased building supply purchasing cooperative, took home the Graznak Award, recognizing her as one of the nation's outstanding young (under the age of 36) co-op communicators.

Mica, a former Florida congressman, was saluted for being "a visible and effective voice for credit unions and cooperatives in the national media." Under his leadership, CUNA has launched a strategic communications plan to "change the conversation" on Capitol Hill about credit unions. The campaign emphasizes how credit unions "look out for the little"



CUNA's Daniel A. Mica was named CEO
Communicator of the Year; Donna Foster
Abernathy (bottom photo, left) won the
Klinefelter Award for career achievement, and
Teri Ditsch won the Graznak Award, recognizing
her as one of the nation's outstanding young coop communicators. Photos courtesy CCA

guy." It involves innovative messaging, "guerilla-marketing" techniques, social media (such as YouTube), traditional advertising and direct communication with lawmakers.

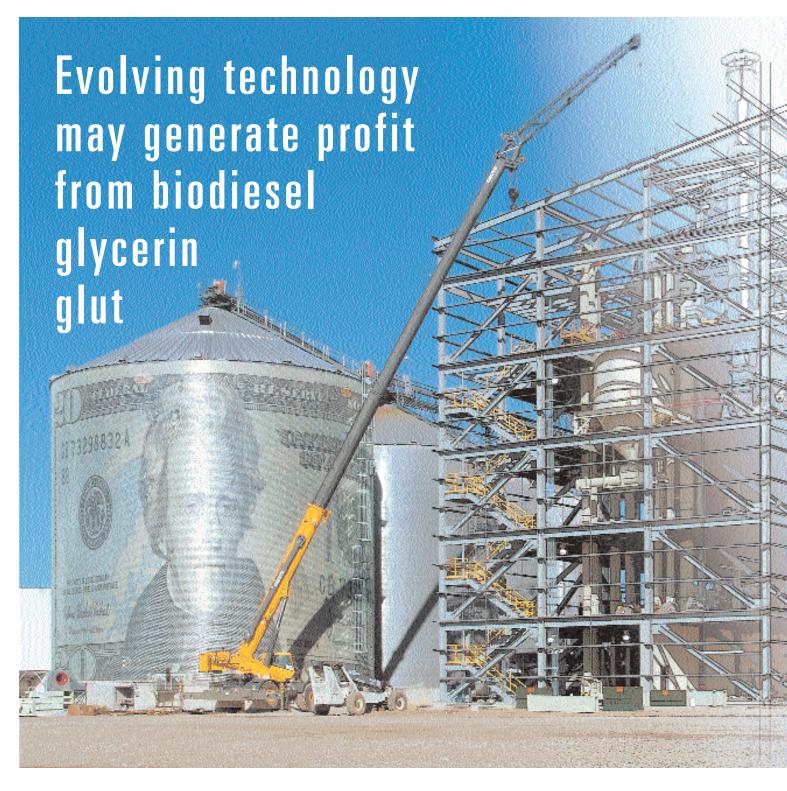
Mica has supported CUNA's full-day national advocacy training program for credit union leaders, half of which focuses on working with the media to deliver key messages about cooperatives and credit unions. CUNA is the nation's largest credit union trade group, representing more than 90 percent of the country's 8,300 state and federally chartered credit unions which together serve some 90 million Americans.

Media savvy winner

Abernathy began her cooperative career with Tennessee Farmers Cooperative, moved into advertising and later started her own freelance marketing communications business, DLF Communication Services, from her home in Murfreesboro, Tenn. Abernathy became *CCA News* editor in 2000, moving the publication to a Web- and e-mail-based distribution.

She was described as "highly creative, professional and savvy in co-op and media realities – an exceptional communicator who employs only the best writing, photography, graphic and editing skills." As editor of *CCA News*, Abernathy has made the newsletter a must read for those seeking to be on the cutting edge of cooperative communications practices.

Ditsch was praised for her continued on page 37



By Anthony Crooks, Ag Economist USDA Rural Development



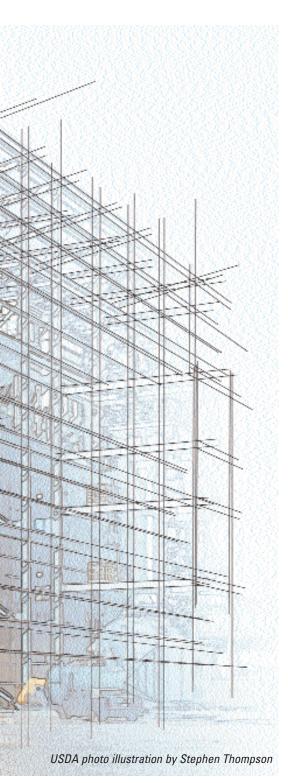
lycerin (glycerin, glycerol) is the main co-product resulting from biodiesel production. The name

comes from the Greek word glykys, meaning sweet. It is a colorless,

odorless, viscous and nontoxic liquid with a sweet taste and literally thousands of uses – at least for pure glycerin. The biodiesel glycerin coproduct is in crude form. Once separated from the soaps, lye and other byproducts, however, this glycerin has significant market value.

Every gallon of biodiesel produced generates 1.05 pounds of glycerin. So a

30-million-gallon-per-year plant will generate about 12,700 tons annually of 99.9 percent pure glycerin. Along with the 600 million gallons of biodiesel soon to be added to the nation's production capacity will come about 315,000 tons of glycerin. With an expected U.S. production of 1.4 billion pounds of glycerin between 2006 and 2015, North American glycerin markets



will be significantly affected by industry growth.

A glutted glycerin market is more than a concern for the farmer-owned co-ops and limited liability corporations (LLC) and other producers of biodiesel. The European glycerin supply is already in over supply. When combined with fatty acid production from palm kernel oil and coconut oil in Southeast

Asia, all are adding to the world's glycerin surplus. Biodiesel production is now the most important determinate in the supply of glycerin.

The nation's synthetic glycerin market has also felt the effects. Dow Chemical, once the only synthetic producer of glycerin in the United States, recently closed its Freeport, Texas, plant, saying that the flood of glycerin from U.S. biodiesel plants was at least partially responsible.

Like biodiesel itself, glycerin quality is a concern for refiners. Crude glycerin quality may be as varied as the process technology used to produce biodiesel. Typically, the large, professionally engineered plants have a more consistent glycerin because more attention is paid to refining the coproduct. Smaller, self-designed facilities are more often just trying to get biodiesel produced and pay less attention to glycerin quality.

Useful molecule

While some community-based biodiesel producers tout soap-making or aerobic composting as potential solutions, that's hardly sufficient for commercial-scale operations. The most likely use for glycerin will be to replace petroleum-based chemicals. Within five years, glycerin is expected to become a developmental platform from which an array of chemical applications will spring as a replacement of a petrochemical equivalent.

An often discussed idea is to convert glycerin to antifreeze. Researchers at the University of Missouri and the Columbia, Mo.-based Renewable Alternatives LLC have completed the first phase of a project using hydrogenation to convert glycerin to propylene glycol. The process turns glycerin and hydrogen into equal parts propylene glycol and water. Plans are underway to scale-up the process for commercialization.

Researchers at Washington State University's Biological Systems Engineering Department are studying how to develop omega-3 fatty acids, succinic acid and succinate salts from glycerol. The U.S. Department of Energy recently identified succinic acid as one of the top 12 biorefinery chemicals to be derived from biomass.

The USDA Agricultural Research Service's Environmental Quality Laboratory in Beltsville, Md., discovered that glycerin from biodiesel production and citric acid can be chemically combined to produce biodegradable polymers, which could be used to produce packaging and other products. An important feature of the process is the use of unrefined glycerol specifically from biodiesel production.

Citric acid is reacted with various alcohols, or hydroxyl-containing materials such as glycerol, to obtain a polyester polymer that is biodegradable, edible, biocompatible and useful in the making of films, sheets, plastics and gellike coatings. Because it is biodegradable, the material holds significant promise for use in packaging materials.

Soy Oil-glycerin products explored

The Ohio Soybean Council and the Battelle Memorial Institute are working together to pioneer new uses for soybean oil and glycerin in the development of polyols, which are used to make polyurethane foams, polyester, adhesives and other goods. Glycerin and soybean oil can be chemically modified (using ozone treatment and/or selective oxidation) to make soyapolyols that are competitive with the petroleum-based products.

The U.S. polyol market is nearly 1 billion pounds and represents a significant value-added opportunity for the biodiesel co-ops and other producers to pursue. Because of what is called "low reactivity," however, soybased polyols need to be blended with petroleum counterparts, just as biodiesel is blended with petroleum diesel, to make specialty products.

Battelle's business strategy is to license technology to interested companies. Ideally, the new technology will alter a biodiesel plant into a multifaceted biorefinery with multiple product streams, just as with a petroleum refinery. A 100-million-gallon biodiesel refinery generates from 60 to 75 million pounds of glycerin, or about 200 million pounds of polyols per year. At the current price of about \$1 per pound, polyols can add another \$200 million in revenue to a biodiesel plant's bottom line.

Battelle's vision is for these refineries

an energy source. For example, distillers grains produced as a byproduct of the ethanol industry can be used as a supplemental energy source. Of course, burning distillers grains and glycerin is a last resort and is best avoided, because glycerin typically doesn't burn well, and crude glycerin gives off toxic fumes when burned, limiting its energy



Researchers at Battelle in Columbus, Ohio, are working to find new uses for soybean byproducts. Such work is funded in part by Soybean Checkoff dollars, contributed by producers. Photo courtesy Ohio Soybean Council

to produce biodiesel for transportation fuel, and to invest in the process to manufacture polyols for the plastics and polymers industries as a springboard to multiple processes, products and revenue streams. Ultimately, every product stream from the plant will become a value-added revenue source.

Battelle isn't alone in the development of polyols. Cargill Inc. recently announced that it had won a technology award from the Alliance for the Polyurethanes Industry for its BiOH bio-based brand of polyols. ADM plans to produce propylene glycol and other "large-volume" chemicals from glycerin. Many people are aware that propylene glycol is used for antifreeze/deicer, but it is also used for fiberglass resins, personal care products and cosmetics.

Alternative energy source

The "floor value" of any material, including glycerin, can be determined by the point at which it can be used as

potential.

However, Virent Energy Systems and the University of Wisconsin-Madison Department of Chemical and Biological Engineering believe that glycerol can be an energy source through aqueous phase reforming (APR). APR generates hydrogen from aqueous solutions of oxygenated compounds in a single-step reactor process.

Low-grade crude glycerin is especially favored because it is cheaper and readily converts to hydrogen. Its sodium hydroxide, methanol and the high pH levels actually help the process. About 10 pounds of glycerin can be converted to 1.5 pounds of hydrogen in Virent's process for less than \$2 per kilogram.

Electricity

Researchers at eTEC Business Development Ltd., a biofuels research company based in Vienna, Austria, have devised mobile facilities that successfully convert the biodiesel byproduct glycerin into electricity. The facilities, according to researchers, will provide substantial economic growth for biodiesel plants while turning glycerin into productive renewable energy.

The glycerin is burned in specially adapted engines to produce electricity. Stable and virtually maintenance-free, eTEC's units consist of a glycerin processing module, a combustion engine with a generator and a control unit that is compatible with any biodiesel plant. With the unit's low malfunction rate and compact design, it can be integrated into a transfer encasement, making it easy to be transported, assembled and moved from one biodiesel plant to another, if desired.

Because electricity is expensive in Europe, biodiesel producers will be able to create their own electrical energy using eTEC's technology to help offset feedstock cost. In addition, heat is simultaneously released during the electricity conversion process, which can be used for heating the plant's tank facilities. eTEC also has plans to reconvert heat back into electricity. Unused electricity can also be fed into the main supply grid for use at the European sponsored eco-electricity rates. Having this kind of 'green' electricity is supported by the local states in the EU, so it is quite profitable for biodiesel projects.

Biogas, methane digester

A Belgian biogas firm, Organic Waste Systems (OWS), is building a methane digester system that uses crude glycerin and resulting biogas from a commercial-scale biodiesel facility to power the plant itself. Such an integrated, closed-loop system has many benefits and makes the biodiesel production process "greener." Glycerin is reported to increase biogas yields considerably, provided the right microbial populations are used.

The Agricultural Utilization Research Institute (AURI) in Marshall,

continued on page 37



Send items to: dan.campbell@wdc.USDA.gov

CountryMark expanding refinery; rebranding Midwest fuel stations

CountryMark Cooperative is investing \$20 million to upgrade and expand its refinery in Mt. Vernon, Ind. The project, announced at the co-op's most recent annual meeting, is expected to be completed in 2008 and will boost refining capacity by 45 million gallons per year, or roughly 12 percent of current production.

The additional production at its Indiana refinery comes at a time when a national gas shortage, combined with a 2-percent increase in U.S. fuel demand, has forced energy prices upward, says CountryMark CEO Charlie Smith. In addition to increasing refinery yields, CountryMark also has announced plans to invest in the reliability of the refinery and fuel distribution facilities.

The co-op has also announced that its EnergyPlus 24 retail fuel stations are being rebranded with the CountryMark name and image. The look has been updated to reflect the stations' identity as CountryMark fuel stations. The 90 fuel stations across Indiana, Ohio and Michigan will continue to have fuel available 24 hours, and many also offer convenience store products and services. The stations are operated by 21 independent local cooperatives, all of which are based in Indiana.

Nearly half of the profits made by CountryMark in 2006 were returned to member cooperatives through patronage refunds. In the past two years, CountryMark has sent \$43.3 million back to its member cooperatives.

Some 5 million gallons of soy biodiesel and 6 million gallons of corn-

based ethanol were purchased by the co-op in 2006 and blended into CountryMark's premium diesel and gasoline products. Nearly 80 percent of the diesel CountryMark distributes through local cooperatives is a blend of soy biodiesel.

In 2006, the co-op completed work on a \$44 million advanced diesel fuel processing unit, which enables it to produce premium, ultra-low sulfur diesel fuel that is more environmentally friendly and meets new EPA clean air mandates. Known throughout the years as an agricultural co-op, CountryMark is now focused exclusively on energy.

NW pear shippers to combine marketing

Two familiar premium Northwest pear shippers have combined operational and marketing relations to become one of the largest premium pear shippers in North America. Stemilt Growers Inc. will market 100 percent of Peshastin Hi-Up Growers pears starting in August. Under a previous agreement, Stemilt marketed a large percentage of Peshastin's crop.

"Stemilt's marketing channels for premium fruit are a perfect fit with our operations," says Peshastin Hi-Up general manager Ken Hemberry. The collaboration makes the two organizations the largest Washington supplier of Concorde, Taylor's Gold and organic pears.

Peshastin Hi-Up is a grower-owned cooperative that has a long history of growing premium pears in the upper Wenatchee River Valley. The co-op, which only ships pears, grew and packed about 750,000 cases of pears in 2006. The majority are d'Anjou and Bartlett pears, while other pear varieties round out the program.

"Stemilt and Hi-Up will gain efficiencies through collaboration in not only marketing but also in packing, storage, packaging, ripening programs, transportation and logistics. This will be a complete go-to-market strategy," says Stemilt vice president of sales and marketing Mike Taylor. Stemilt is privately owned by the Mathison family, which has farmed in Central Washington since the early 1900s. Stemilt shipped approximately 1 million boxes of pears in 2006.

GROWMARK to acquire energy firm; teams with FB on risk management

GROWMARK Inc. is seeking to acquire 100 percent of STAR Energy LLC (STAR), Manson, Iowa. STAR is a retail energy company serving northwest Iowa with \$60 million in sales last year.

STAR, currently owned by GROWMARK, West Central Cooperative and NEW Cooperative Inc., primarily serves rural markets. It delivers gasoline, distillates, propane, and lubricants and operates unattended fueling locations.

West Central Cooperative CEO Jeff Stroburg says the transaction will allow West Central to focus more on its strategic businesses. STAR Energy and West Central have many common customers and plan to continue to support each other in the marketplace, he notes.

In other GROWMARK news, the co-op is forming a joint venture with Illinois Farm Bureau called AgriVisor LLC. The venture brings together the organizations' grain and livestock marketing analysis and contract execution functions in an effort to offer farmers the best marketing tools available.

"Uniting our efforts to provide farmers with risk management alternatives that maximize their profitability is a logical step for two organizations committed to serving the best interests of our farmer-members and owners," says Larry Keene, GROWMARK director of grain risk management and value-enhanced products.

Co-op development class

Applications are being accepted for Session II of The Art & Science of Cooperative Development, a training program for new and established co-op development practitioners. The program is produced by CooperationWorks!, a nationwide service co-op for cooperative development centers and individual practitioners. This five-day, intensive training takes place in Madison, Wis., Sept. 10-14. Session I is not a prerequisite for Session II. For more information, contact Audrey Malan, (307) 655-9162 or cw@vcn.com.

AMPI acquires Cass-Clay

Associated Milk Producers Inc. (AMPI), New Ulm, Minn., has completed the acquisition of Cass-Clay Creamery Inc. The North Dakotabased cooperative is now operating as a division of AMPI.

The Cass-Clay division includes a fluid milk bottling plant in Fargo, N.D., and a specialty cheese plant in Hoven, S.D. Products manufactured at the Fargo facility will continue to be marketed under the Cass-Clay® brand, recognized in the upper Midwest for quality fluid milk, ice cream and cultured products such as yogurt and sour cream.

"The dairy farmers of Cass-Clay are proud to be the newest AMPI owners," says David Glawe, chairman of the Cass-Clay and a Detroit Lakes, Minn., dairy farmer. He is one of nearly 200 cooperative owners who unanimously voted to authorize the transfer of Cass-Clay Creamery assets to AMPI.

The Cass-Clay brand and product line complements products manufactured at AMPI plants across the Midwest. AMPI is a private-label manufacturer of consumer-packaged cheese, butter, instant milk and shelf-stable dairy products. With the acquisition, the 4,000 dairy farmerowners of AMPI now operate 15 plants and annually market more than \$1



This processing plant in Fargo, N.D., will now be part of AMPI, but will continue to produce foods under the Cass-Clay brand.

billion of dairy products regionally and nationally.

"This acquisition reflects the cooperative's long-term commitment to Midwest dairy farmers," says Paul Toft, AMPI board chairman and a dairy farmer from Rice Lake, Wis. "It allows us to optimize our farmer-owned milk manufacturing facilities."

Study: ethanol not main factor in higher food costs

A new study by agricultural economist John Urbanchuk of LECG throws a bucket of cold water on the popular argument that the rising cost of corn – prompted by the increasing production of ethanol – is the cause of

increased food prices and other consumer-related inflation. Instead, Urbanchuk's new statistical research shows that escalating energy costs are the real culprit behind the recent runup in retail food and beverage prices.

The study arrives amidst a growing debate over the expansion of the U.S. ethanol industry. Many critics blame ethanol and corn producers for everything from shortages of Mexican tortillas to higher prices for corn flakes and soft drinks.

Urbanchuk's study – *The Relative Impact of Corn and Energy Prices in the Grocery Aisle* – was commissioned by the Renewable Fuels Association. The full report and corresponding tables can be found at: http://www.rippmedia.com/LECG-JU-Ethanol.doc.

According to the Urbanchuk report, rising energy prices have had twice the impact on the Consumer Price Index for food as has the price of corn. He examines CPI data from 2002 through May of this year to make his point.

"While it may be more sensational to lay the blame for rising food costs on corn prices, the facts don't support that conclusion," says Urbanchuk. "By a factor of two-to-one, energy prices are the chief factor determining what American families pay at the grocery store."

Moreover, he notes, "Retail food prices are not likely to accelerate significantly in 2008 and beyond, even as ethanol production continues to expand. In fact, consumers will be more severely affected by rising gasoline and energy prices than by increases in corn prices."

A&N Electric Co-op to acquire Delmarva Power

A&N Electric Cooperative's (ANEC) board has voted to acquire the electric distribution service territory of Delmarva Power in Accomack and Northampton counties on Virginia's Eastern Shore. The purchase agreement, which is subject to approval by the Virginia State Corporation Commission (SCC), will mean that ANEC will become the electricity

FCS boosts lending to young, beginning and small producers

The Farm Credit System (FCS, or System) is increasing its financing of young, beginning and small (YBS) farmers and ranchers, according to a recent report. The overall trend for lending to each of the three YBS borrower categories continues to be positive, with solid gains in 2006 loan volume from 2005 levels, according to the report prepared for the Farm Credit Administration, which oversees the nation's producerowned FCS.

The number of new loans was up for beginning and young farmers and was flat for small farmers in 2006. However, the growth rate in the YBS categories as a percentage of the System's total new-loan dollars was down slightly for 2006. Small farmers continued to receive the largest share — 54 percent — of the System's new loans during the year.

The report, prepared by Office of Regulatory Policy, is part of the FCA's continuing effort to ensure that the FCS responds

to the credit needs of these farmers and ranchers. In March 2004, the FCA board approved a regulation strengthening YBS programs and policies at System banks and associations. Congress established the YBS mission in the 1980 amendments to the Farm Credit Act.

In 2006, the System held 140,209 loans worth \$15.4 billion made to young farmers, age 35 or younger, up 11 percent from 2005. During 2006, 46,459 new loans worth \$5.5 billion were made to young farmers, or 17 percent of all new loans made during the year and 10.5 percent of the new-loan dollar volume.

FCS holds 189,223 loans, worth \$25.4 billion, made to beginning farmers — those with 10 or fewer years of farming experience. During 2006, 57,838 new loans worth \$9.3 billion were made to beginning farmers, representing 21.2 percent of all new loans and 17.8 percent of new-loan dollar volume.

FCS institutions had 465,951 loans outstanding worth \$36.3 billion to small farmers — those with gross annual sales of less than \$250,000 — at the end of 2006. During 2006, 148,025 new loans worth \$11.6 billion were made to small farmers. New loans to small farmers represented 54.3 percent of all new loans and 22.2 percent of new loan volume. Although the number of new loans made during 2006 was essentially unchanged from 2005, the volume of new loans increased 6

percent.

Economic and demographic factors have led to a decline in the number of small and young farmers in the farming population. As a result, the System's potential YBS lending market has declined. To encourage lending to these farmers, many associations are using special underwriting standards, lower interest rates or other programs aimed at YBS borrowers.



The Farm Credit System is striving to provide financing to more young and beginning producers, such as Matt and Stacy Stevenson of Maryland. Photo courtesy Mid Atlantic Farm Credit

provider for the approximately 22,000 customers of Delmarva Power located in Virginia.

ANEC currently serves more than 11,000 consumers in portions of Accomack and Northampton Counties in Virginia and Somerset County, Md. With the addition of consumers now served by Delmarva Power, ANEC will be the distributor of electric service for all residents of Virginia's Eastern Shore.

Terms of the purchase agreement will be released to the public once a formal application has been filed with the SCC.

A&N Electric Cooperative's wholesale power supplier, Old Dominion Electric Cooperative, will purchase and operate the majority of Delmarva Power's 69 kV transmission facilities in Virginia, a transaction that will complement the distribution system

purchased by A&N. Old Dominion Electric Cooperative, based in Glen Allen, Va., is a wholesale power supply cooperative that provides electricity to 12 member distribution cooperatives across Virginia, Maryland and Delaware.

CHS building three pipeline terminals

CHS Inc. is constructing two new Montana petroleum terminals and

planning a third for eastern Washington to maximize supply efficiency for customers of its Cenex® brand refined fuels products. The terminals under construction are located at Logan and Missoula, Mont., along the Yellowstone Pipeline. A location is being sought for a planned terminal in the Moses Lake, Wash., area.

The three terminals will supply CHS customers with a wide range of products for bulk distribution from the company's refinery at Laurel, Mont., including gasolines, diesel fuels and ethanol-blended gasolines. The terminals are designed to accommodate biodiesel blends in the future.

Conference to gauge true value of co-op businesses

Cooperatives are facing many strategic dilemmas as they continue to adapt to a changing business landscape. Understanding the true value of the cooperative business is critical to meeting these challenges.

"Valuing the Cooperative Business in the 21st Century" is the theme of this year's annual farmer Cooperative Conference, which will help address these issues.

The conference, now in its 10th year, will be held Nov. 5-6 in St. Paul, Minn., at the Crowne Plaza Hotel. The event is sponsored by the University of



Wisconsin Center for Cooperatives. Topics will include:

- measuring the value of cooperatives;
- the economic impact of cooperatives on the U.S. economy;
- financial benchmarks for cooperatives;
- business structure strategies and choices: the cooperative versus the investor owned firm.

Updates on the conference and registration information will be posted on the University of Wisconsin Center for Cooperatives Web site: www.uwcc.wisc.edu. Or contact: Lynn Pitman at (608) 261-1355, or pitman@wisc.edu.

Small farmers learn ways at conference to add value

The 20th annual California Farm Conference in Monterey, Calif., in March, was attended by 375 farmers, ranchers, ag students, educators, farmers' market managers and other professionals. They learned marketing practices that will help them increase their profits and grow their businesses.

The conference theme was "The Time Is Ripe," and workshops were designed to meet the mission of the conference: to address timely topics relevant to family farming, direct marketing and agricultural sustainability.

Conference topic tracks included: "Growing Your Business," "Making Your Market Successful," New Frontiers in Specialty Crops," "After the Harvest: Value-Added Strategies," "Hot Topics in California," "Marketing: If I Grow it; Will They Come?" and "New Ideas in Production."

At a session titled "Financing Value-Added Projects," speaker Rhonda Motil of the Monterey County Vintners and Growers Assoc., spoke about the success the organization has had using Value-Added Producer Grants (VAPG) from USDA Rural Development. Karen Firestein, cooperative specialist for USDA Rural Development in California, provided detailed information about applying for a VAPG.

In attendance were scholarship recipients as part of a program funded by USDA. They included small-scale farm operators with limited means as well as agriculture students and farmers' market managers. In the past five conferences, the California Farm Conference has targeted its outreach and successfully increased the diversity of attendees.

In 2007, with the assistance of USDA, scholarships went to 90 small-scale farmers, of whom 38 percent were Hispanic, 6 percent African-American and 28 percent Asian or Pacific Islanders. About 38 percent were women, 4 percent Native American and 4 percent were persons with disabilities. In addition, 15 farmers' market managers and 15 students were awarded scholarships.

USDA Rural Development provided a \$72,000 Rural Business Enterprise Grant to help cover the costs. For more information about the conference, visit: http://www.californiafarmconference. The 2008 California Farm Conference will be held Feb. 24-26 in Visalia, Calif. ■

South Dakota co-ops merging

Two South Dakota co-ops — Fremar Farmers Cooperative, based in Marion, and Central Farmers Cooperative, based in Salem — have voted to merge, effective Aug. 1. The new cooperative will be called Central Farmers Cooperative and will be based in Marion. About 78 percent of Central

Farmers' patrons and 89 percent of Fremar patrons approved the merger, according to the Associated Press.

Central Farmers has operations in Montrose, Canova and Rumpus Ridge. Its services include fuel, propane, tires, oil, feed, lumber, agronomy and grain services to customers in a 35-mile radius of Salem. Fremar is based in Marion and has additional facilities in Freeman and Dimock. Its services include agronomy, grain and feed. Fremar has developed one of the

largest producer-owned ethanol projects in South Dakota. Construction on Millennium Ethanol, a 100-milliongallon ethanol plant, is expected to be completed by the end of 2007. US BioEnergy has announced a plan to acquire the plant.



Top Co-op Communicators continued from page 29

success in raising the communications program at her co-op to a new level since joining it in 2001. She serves as editor of her co-op's magazine and newsletter, is responsible for special event planning, advertising, media relations, Web site maintenance, photography and a variety of other marketing and communication projects.

Ditsch, who just assumed the CCA presidency, was called "one of the nation's most creative, talented and detailed communicators." She "consistently demonstrates the seven principles of cooperatives in all that she does. Because her work always displays a high level of professionalism, many other purchasing co-ops borrow her talent and follow her lead."

H.E. Klinefelter, who died in 1957,

was one of CCA's founders and an employee of what today is MFA Inc. Michael Graznak was a talented communicator with Farmland Industries. He died at age 51 of a heart attack while on an assignment for the co-op.

Other top awards

CCA awarded its other top honors

- Photographer of the Year David Lundquist of CHS Inc./Land O'Lakes;
- Publication of the Year Sara Dorman of West Central Cooperative;
- Special Projects/Programs, Best of Class — Morriah Morris of the Wisconsin Milk Marketing Board;
- Writer of the Year— Dan Campbell, editor of USDA's Rural Cooperatives magazine.

Other awards won by Rural Cooperatives staff or contributors included: Anne Todd, first place featurette for an article about a co-op for housecleaners; Catherine Merlo, first place serious/investigative feature for "Left Behind," about grain co-ops that have lost business due to biofuels development; Dan Campbell, second place for serious/investigative features for "The Natural," about a natural beef cooperative, and third place in the cooperative education category for an article on the 80th anniversary of the Cooperative Marketing Act; Assistant Editor Stephen Thompson, third place in the news category for coverage of a renewable energy conference. The magazine was awarded third place for best overall use of photos in a publication.

Biodiesel Glycerin Glut

continued from page 32

Minn., has studied the possibility of using glycerin as a fuel or fuel supplement. One study tested glycerin in wood pellets fueling a wood-burning stove. But analysis show no real significant improvement with the glycerin mixture.

Animal feed

AURI also works with Minnesota biodiesel producer FUMPA Biofuels to combine feather meal and glycerin for use in beef and dairy diets. Because glycerin produced at the plant is about 85 percent pure, pH neutral and free of soaps and methanol, FUMPA has a unique product opportunity and is able to capitalize on the synergy between its biodiesel and animal feed divisions.

FUMPA has developed an animal feed consisting of a blend of Central Bi Products' hydrolyzed feather meal with glycerin. Gro Mor Hi-Torque, as the product is branded, was developed in part through the Agricultural Utilization Research Institute's (AURI) co-product utilization lab in Waseca, Minn., where AURI developed a method for making pellets from the mixture.

Various blends of glycerin and feather meal were tested to

develop a high-density feed with pellet durability greater than 95 percent, making it ideal for high-volume transportation and extending the product's shelf life.

Poultry feed

A more recent animal feed trial using glycerin has received national attention. Researchers at the University of Arkansas' Center of Excellence for Poultry Science recently studied glycerin as a dietary supplement in growing broiler chickens. Although strictly preliminary, the study showed that as much as 10 percent glycerin could be fed to chicks up to 16 days of age in battery brooders. Battery brooders are brooding boxes with wire floors stacked on top of each other to conserve space.

A 5-percent glycerin inclusion in pelleted feed showed no adverse effect on bodyweight, feed intake, feed conversion or mortality. However, 10-percent glycerin inclusion reduced body weight due to reduced feed-flow rate.

A second study will determine the effects of a 2- to 2.5-percent glycerin inclusion to more accurately represent real-world market conditions. The typical poultry operation mixes 4,000 tons of feed per week and would require a commercial-scale biodiesel plant to have enough glycerin for even a 1-percent inclusion.



PAGE FROM THE PAST

From the archives of Rural Cooperatives and its predecessor magazines

50 Years Ago...

From the July & August 1957 issues of News for Farmer Cooperatives

Concentrated fresh milk stirs far-flung markets

Fresh concentrated milk in one-third quarts has aroused interest from coast to coast, and as far away as Central and South America. The Pure Milk Association (PMA), Chicago, Ill., began selling the milk in February. Almost as soon as the milk hit the market, newspapers began carrying stories about it. Altogether, 18 weekly and nine daily newspapers, including the *Wall Street Journal*, featured coverage about the milk. Radio and television stations also broadcast the event.

In six weeks, PMA's wholesale distribution of the milk



increased about 30 percent over the first two weeks' average. About 100 retail food stores in Southeast Wisconsin are on the list to buy the concentrate. Later the co-op will expand into new areas in southern Wisconsin and in Illinois, and may look into export markets.

PMA's Kansasville, Wis., plant makes, packages and stores the concentrated fresh milk. The plant also makes 93-score butter, skim milk powder and ice cream

mix. It receives both can and bulk farm milk. The plant is adding processing equipment to ensure uniform milk product quality. To satisfy requests of many grocers and consumers, the co-op may increase the size of the milk container to a one-quart paper carton.

Women's co-op market celebrates 25th year (cover article)

The silver anniversary of the Montgomery Farm Women's Cooperative Market, Bethesda, Md., drew about 2,000 visitors from Washington, D.C., and nearby areas in late May. Among those present were some of the pioneers whose hard work and clear vision in the early days helped get the market started.

This women's market, set in the heart of suburban Bethesda, has long given its farm women ready cash for their products: home baked bread, beans, hams, fresh eggs and poultry, home canned fruits and vegetables, and crafts. The market, open Wednesdays and Saturdays, typically sells about \$3,000 of farm-produced food on a Saturday.



"From tent to tent in 25 years," smiled one co-op member, thinking of the day the market first started with women selling products from their own farm kitchens in a tent. Now, with their own building on a valuable piece of land, they again put up a tent on the same site – but this time to serve punch, coffee and cookies to visitors who came to help them celebrate their birthday.

The market now has 60

active sellers, many of them selling on the same spot for many years. Nellie C. Hargett, one of the earliest members, joined in 1933 and has since missed fewer than 10 market days, and only then because of illness in the family.

30 Years Ago...

From the July & August 1977 issues of Farmer Cooperatives

Oregon co-op using shrimp, crab shells as fertilizer

Twenty farmers have formed the first cooperative in Oregon to use shrimp and crab shells as fertilizer. At the same time, the cooperative is resolving an ecological problem for the Newport seafood processing industry.

The cooperative, Coastal Farmers Cooperative, has contracted to remove shells from two of the half-dozen



seafood processors in Yaquina Bay. The co-op expects to use 1,500 to 3,000 tons of shells annually from the two contracts.

The co-op pays a refuse collector to haul and dump the shells onto farms. The member farmers then spread the shells over their pastures and fields and plow them into the ground to decompose. Preliminary testing

indicates a ton of shells provides 28 pounds of nitrogen, 10 pounds of phosphorous and 160 pounds of calcium.

Paul Keady, a cattle producer and president of the cooperative, says he would rather use the shells than a commercial fertilizer. He said the cost is slightly less and the shells have the added benefit of promoting soil bacteria that release nitrogen and other nutrients from sterile coastal soils.

Seafood processors have been placed under orders by the state's Department of Environmental Quality to stop dumping shells into water. Keady explains, "The processors pay us \$6 a ton to haul away their shells and we sell the shells for the same amount." The cooperative then pays the hauling costs.

Global co-op collaboration needed

More experiments in international collaboration between cooperatives are needed, according to a committee of the



International Federation of Agricultural Producers (IFAP). The Standing Committee on Agricultural Cooperation of IFAP took this position after voicing concern for farmers' interests in the face of growing multinational agrifood companies.

"Since 1960, there has been a substantial acceleration in the multinational character of companies both upstream and

downstream," the committee wrote. "Upstream concentration is particularly strong and cooperatives are very weak in the fertilizer industry, in farm machinery and in feeds at the production stage. Downstream it would seem that multinational companies currently supply 40 percent of processed food products at the world level."

IFAP is a federation of agricultural cooperative organizations that are representative of the primary producers within a country.

10 Years Ago...

From the July/August 1997 issue of Rural Cooperatives

Co-op involvement in ethanol industry grows despite uncertainty

Over the past decade, the production of energy from renewable resources has commanded considerable discussion and excitement. Various programs at the state and federal level have provided subsidies to start businesses in this industry. Simultaneously, technological advances have lowered production costs and the promise of economically viable production continues to be "just around the corner."

Since the early 1970s, many farm groups, including farmer cooperatives, have been studying the economic possibilities of

producing ethanol, methane and oil/fat-based fuels. A number of representative organizations have been formed to encourage the use of "renewable fuels" and to promote policies that would provide an economic climate suitable for the industry's growth.

Currently, a number of new ethanol refining facilities are in operation, under construction or in the planning stage. They offer great



potential to add economic value to corn and other feedstocks through the production and marketing of fuel ethanol.

Despite the general enthusiasm for renewable energy from the heartland, loan analysts from several banks for cooperatives remain cautious. For example, the St. Paul Bank for Cooperatives, which has been assessing the viability of ethanol projects for more than 15 years, has chosen to finance very few. Government tax credits and exhaust emission regulations, among others, are major areas of concern to the emerging ethanol industry.

The sunsetting of the federal excise tax reimbursement in the year 2000 creates an aura of uncertainty around the industry and especially any new fuel ethanol production venture. Even though it is a subsidized industry still in its infancy, ethanol has passed some significant milestones in the U.S. fuel marketplace. Recent recognition of ethanol and ethyl-tertiary butyl ether (ETBE) as high quality fuel additives capable of delivering significant environmental, economic and energy benefits to the consumer has spurred industry production to record levels.

Co-ops are major players in providing energy products for farm production, having a 41-percent market share in 1993. That year, more than 2,500 cooperatives sold \$5.2 billion of energy products to rural America. Around 29 percent of the gasoline sold by cooperatives contained ethanol.

To date, 11 farmer-owned ethanol production facilities are in operation, and 14 are in the planning stages. When completed, these plants are expected to comprise 38 percent of the ethanol production capacity in the United States. Thousands of farmers have collectively invested more than \$1 billion to build ethanol facilities. Many thousands more co-op members already produce feedstocks that can be used for ethanol production.

Although the economic landscape of this industry is fraught with uncertainty, profit opportunities may still exist given the right set of circumstances of low corn prices and higher ethanol and distillers dried grain prices.

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